

10/732,919

=> d his nofile

(FILE 'HOME' ENTERED AT 09:47:08 ON 11 JAN 2007)

FILE 'HCAPLUS' ENTERED AT 09:47:23 ON 11 JAN 2007

E US20050129619/PN

L1 1 SEA ABB=ON PLU=ON US2005129619/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 09:47:53 ON 11 JAN 2007

L2 101 SEA ABB=ON PLU=ON (99685-96-8/BI OR 107-15-3/BI OR
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853731-93-8/BI OR 951-77-9/BI OR 10098-91-6/BI OR
104495-35-4/BI OR 119951-66-5/BI OR 121563-65-3/BI OR
13967-65-2/BI OR 13981-25-4/BI OR 13982-06-4/BI OR
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OR 9002-67-9/BI OR 9034-40-6/BI OR 927-68-4/BI)

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L3 1 SEA ABB=ON PLU=ON L1 AND L2

FILE 'REGISTRY' ENTERED AT 10:44:13 ON 11 JAN 2007

L20 1 SEA ABB=ON PLU=ON 875544-24-4/RN
L21 1 SEA ABB=ON PLU=ON 14344-48-0/RN
L39 1 SEA ABB=ON PLU=ON C18 H31 N9 O4 S2/MF
L40 STRUCTURE
L41 5 SEA SSS SAM L40
L42 100 SEA SSS FUL L40
SAV L42 SCH919/A
L44 STRUCTURE
L45 1 SEA SUB=L42 SSS SAM L44
L46 20 SEA SUB=L42 SSS FUL L44

FILE 'HCAPLUS' ENTERED AT 14:26:59 ON 11 JAN 2007

L47 6 SEA ABB=ON PLU=ON L46
L48 1 SEA ABB=ON PLU=ON L39

FILE 'REGISTRY' ENTERED AT 15:52:22 ON 11 JAN 2007

L49 1 SEA ABB=ON PLU=ON 84295-19-2/RN
L50 72 SEA ABB=ON PLU=ON C8 H16 N2 O4 S2/MF
L51 9 SEA ABB=ON PLU=ON L50 AND ?CYSTEINE?

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L52      241 SEA ABB=ON  PLU=ON  L49 OR (N2S2 (2A) (LIGAND? OR
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L53      1392 SEA ABB=ON  PLU=ON  L50 OR (?ETHYLENEDICysteINE? OR
        ?ETHYLENE (A) DICysteINE?)
L54      QUE ABB=ON  PLU=ON  TARGET? (L) IMAG?
L55      QUE ABB=ON  PLU=ON  PET OR (POSITRON (2A) EMIS? (2A)
        TOMOGRAPH?)
L56      QUE ABB=ON  PLU=ON  RADIONUCL? OR RADIO? (2A) NUCL? OR
        TC OR TECHNETIUM
L57      161 SEA ABB=ON  PLU=ON  (L52 OR L53) AND L56
L58      23 SEA ABB=ON  PLU=ON  (L52 OR L53) AND L56 AND (L54 OR
        L55)
L59      7 SEA ABB=ON  PLU=ON  L47 OR L48
L60      18 SEA ABB=ON  PLU=ON  L58 NOT L59

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=> file reg

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FILE 'REGISTRY' ENTERED AT 16:22:28 ON 11 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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STRUCTURE FILE UPDATES:  10 JAN 2007  HIGHEST RN 917201-58-2
DICTIONARY FILE UPDATES: 10 JAN 2007  HIGHEST RN 917201-58-2

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New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d 148 que stat

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L39      1 SEA FILE=REGISTRY ABB=ON  PLU=ON  C18 H31 N9 O4 S2/MF
L48      1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39

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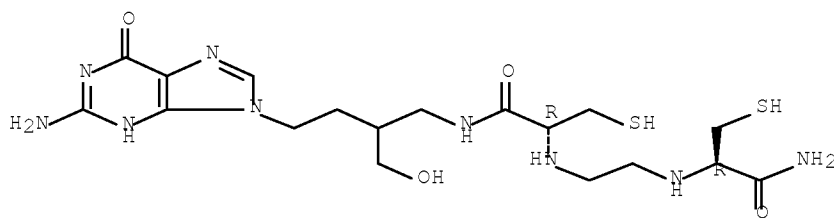
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L39  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   875544-24-4  REGISTRY
ED   Entered STN:  01 Mar 2006
CN   Propanamide, N-[4-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)-2-
      (hydroxymethyl)butyl]-2-[[2-[[[(1R)-2-amino-1-(mercaptomethyl)-2-
      oxoethyl]amino]ethyl]amino]-3-mercapto-, (2R)- (9CI)  (CA INDEX
      NAME)
FS   STEREOSEARCH
MF   C18 H31 N9 O4 S2
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT

```

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 16:23:18 ON 11 JAN 2007

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FILE COVERS 1907 - 11 Jan 2007 VOL 146 ISS 3

FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 148 ibib ed abs hitstr

L48 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:901688 HCAPLUS Full-text

DOCUMENT NUMBER: 144:219128

TITLE: 99mTc-Ethylenedicysteine-Guanine: Synthesis, Biodistribution, and Tumor Imaging in Animals

AUTHOR(S): Yang, David J.; Ozaki, Kaoru; Oh, Chang-Sok; Azhdarinia, Ali; Yang, Thomas; Ito, Megumi; Greenwell, Allison; Bryant, Jerry; Kohanim, Saady; Wong, Vincenzo K.; Kim, E. Edmund

CORPORATE SOURCE: Division of Diagnostic Imaging, The University of Texas MD Anderson Cancer Center, Houston, TX, 77030, USA

SOURCE: Pharmaceutical Research (2005), 22(9), 1471-1479
 CODEN: PHREEB; ISSN: 0724-8741

PUBLISHER: Springer Science+Business Media, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

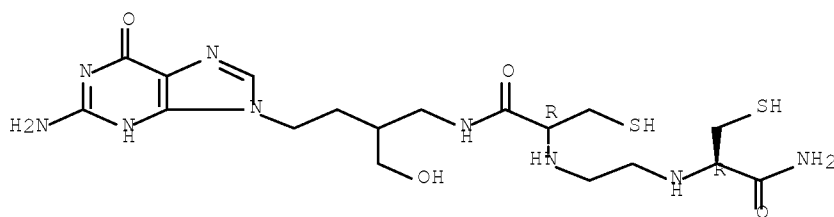
OTHER SOURCE(S): CASREACT 144:219128

ED Entered STN: 26 Aug 2005

10/732,919

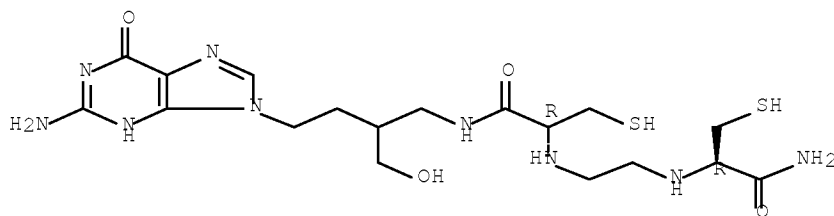
- AB Purpose DNA markers are useful in assessing cell proliferation. The purpose of this study was to synthesize ^{99m}Tc-ethylenedicysteine- guanine (EC-Guan) for evaluation of cell proliferation. Methods Tumor cells were incubated with ^{99m}Tc-EC-Guan for cell cycle anal. Prostate tumor cells that were overexpressing the HSV thymidine kinase gene, or various tumor cells were incubated with ^{99m}Tc-EC-Guan at 0.5-2 h. Thymidine incorporation assays were performed in lung cancer cells incubated with EC-Guan at 0.1-1 mg/well. Tissue distribution, autoradiog., and planar scintigraphy of ^{99m}Tc-EC-Guan and ^{99m}Tc-EC (control) were determined in tumor-bearing rodents at 0.5-4 h. Results Cell culture assays indicated that EC-Guan was incorporated in DNA, and there was no significant uptake difference between HSVTK overexpressed and normal groups. Biodistribution and scintigraphic imaging studies of ^{99m}Tc-EC-Guan showed increased tumor/tissue count d. ratios as a function of time. Conclusions Our results indicate that ^{99m}Tc-EC-Guan may be useful as a tumor proliferation imaging agent.
- IT 875544-24-4DP, technetium complexes 875544-24-4P
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (99mTc-ethylenedicysteine-guanine synthesis, biodistribution, and tumor imaging in animals)
- RN 875544-24-4 HCAPLUS
- CN Propanamide, N-[4-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)-2-(hydroxymethyl)butyl]-2-[[2-[[[(1R)-2-amino-1-(mercaptomethyl)-2-oxoethyl]amino]ethyl]amino]-3-mercapto-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- RN 875544-24-4 HCAPLUS
- CN Propanamide, N-[4-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)-2-(hydroxymethyl)butyl]-2-[[2-[[[(1R)-2-amino-1-(mercaptomethyl)-2-oxoethyl]amino]ethyl]amino]-3-mercapto-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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 FILE 'REGISTRY' ENTERED AT 16:23:55 ON 11 JAN 2007

10/732,919

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STRUCTURE FILE UPDATES: 10 JAN 2007 HIGHEST RN 917201-58-2
DICTIONARY FILE UPDATES: 10 JAN 2007 HIGHEST RN 917201-58-2

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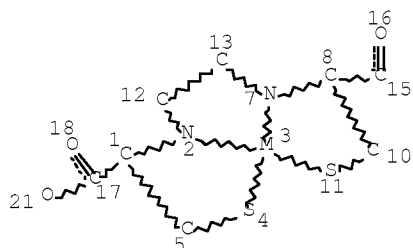
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

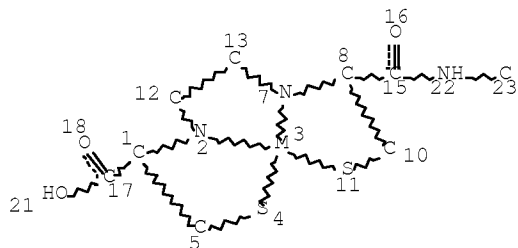
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L40 STR



NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L42 100 SEA FILE=REGISTRY SSS FUL L40
L44 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

10/732,919

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
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STEREO ATTRIBUTES: NONE
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L47 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L46

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FILE 'HCAPLUS' ENTERED AT 16:24:04 ON 11 JAN 2007
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FILE COVERS 1907 - 11 Jan 2007 VOL 146 ISS 3
FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 147 1-6 ibib ed abs hitstr

L47 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:617670 HCAPLUS Full-text
DOCUMENT NUMBER: 145:110204
TITLE: Ethylenedicysteine-drug conjugates, compositions and methods for tissue specific disease imaging
INVENTOR(S): Yang, David J.; Liu, Chun W.; Yu, Dong-Fang; Kim, E. Edmund
PATENT ASSIGNEE(S): Board of Regents, University of Texas System, USA
SOURCE: U.S., 125 pp., Cont.-in-part of U.S. Ser. No. 587,583.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 7067111	B1	20060627	US 2000-599152	20000621
US 6692724	B1	20040217	US 1999-434313	19991025
CA 2410906	A1	20011206	CA 2001-2410906	20010601
WO 2001091807	A2	20011206	WO 2001-US18060	200106

01

WO 2001091807 A3 20020829

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE,
 GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
 NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
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EP 1286704 A2 20030305 EP 2001-941895

200106
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BR 2001011220 A 20030624 BR 2001-11220

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JP 2003534388 T 20031118 JP 2001-587819

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NO 2002005729 A 20030129 NO 2002-5729

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US 2005079133 A1 20050414 US 2003-672142

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US 2005084448 A1 20050421 US 2003-672763

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US 2006188438 A1 20060824 US 2006-405334

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PRIORITY APPLN. INFO.: US 1999-434313

A2

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US 2000-587583

B2

200006
02

US 2000-599152

A

200006
21

WO 2001-US18060

W

200106
01

ED Entered STN: 27 Jun 2006

AB The invention provides, in a general sense, a new labeling strategy employing 99mTc chelated with ethylenedicycysteine (EC). EC is conjugated with a variety of tissue-targeting ligands and chelated to 99mTc for use as an imaging agent for tissue-specific diseases such as tumors, infections, hypoxia, myocardial infarction, apoptosis, Alzheimer's disease and endometriosis. The drug conjugates of the invention may also be used as a prognostic tool or as a tool to deliver therapeutics to specific sites within a mammalian body. Kits for use in tissue-specific disease imaging are also provided.

IT 224558-87-6P 378782-42-4P 660823-42-7P
 660823-44-9DP, reaction products with glucosamine
 660823-44-9P

RL: DGN (Diagnostic use); PKT (Pharmacokinetics); PRP (Properties);

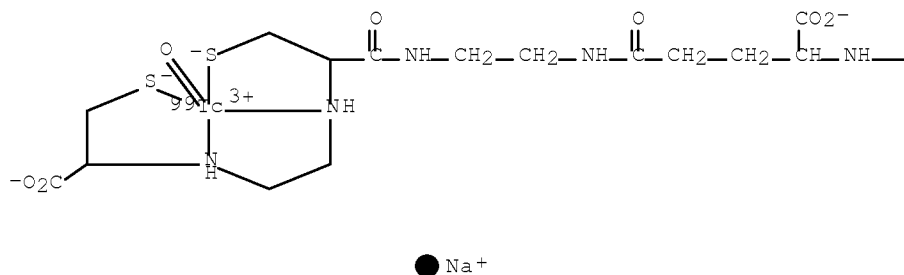
10/732,919

SPN (Synthetic preparation); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(^{99m}Tc-ethylenedicysteine complex conjugated to tissue-targeting
compsd.)

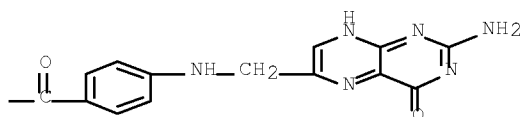
RN 224558-87-6 HCAPLUS

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oxo-6-pteridiny]methyl]amino]benzoyl]amino]-2,7-bis[(mercapto-
κS)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-
κN3,κN6]oxo-, sodium, (SP-5-35)-(9CI) (CA INDEX NAME)

PAGE 1-A



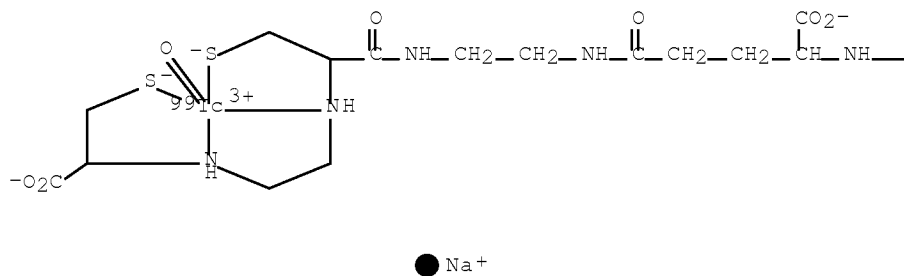
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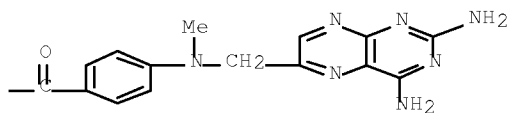


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κS)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-
κN3,κN6]oxo-, sodium, (SP-5-35)-(9CI) (CA INDEX NAME)

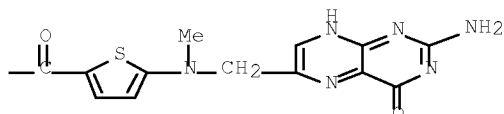
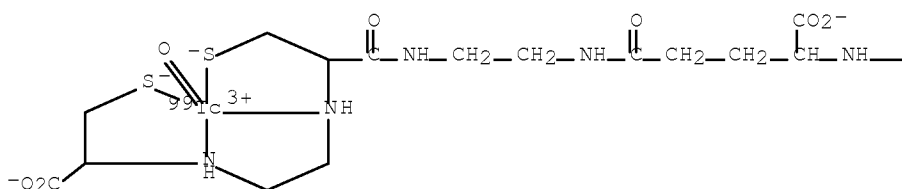
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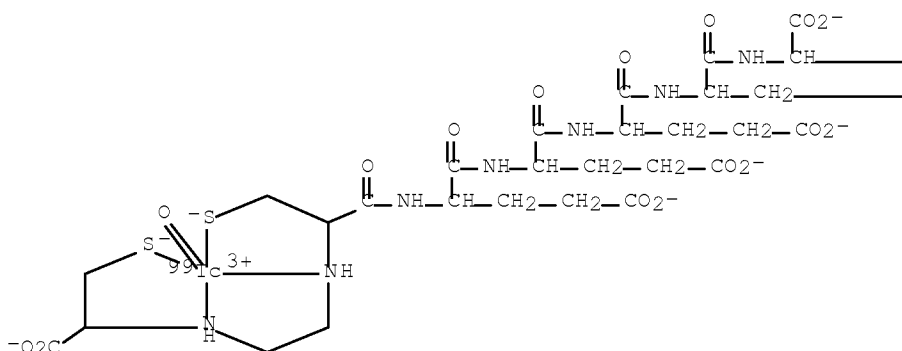
RN 660823-42-7 HCAPLUS

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RN 660823-44-9 HCAPLUS

CN Technetate (6-)-99Tc, [N-[2-[[[(1R)-1-carboxy-2-(mercapto-κS)ethyl]amino-κN]ethyl]-L-cysteinyl-κN,κS-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-glutamato(9-)]-, hexasodium, (SP-5-35)- (9CI) (CA INDEX NAME)



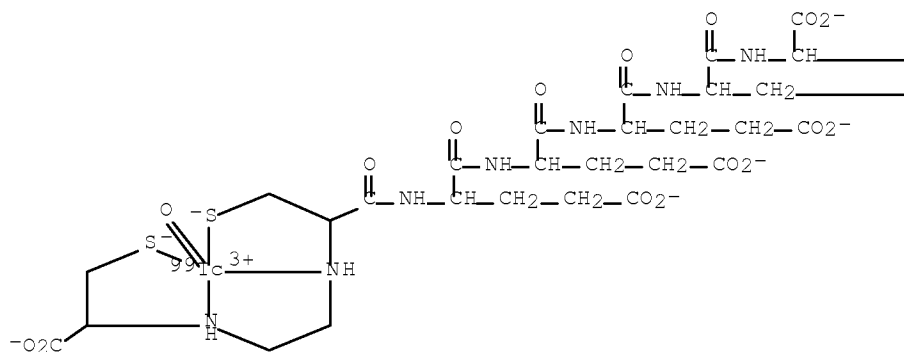
PAGE 1-B

—CH₂—CH₂—CO₂⁻—CH₂—CO₂⁻●⁶ Na⁺

RN 660823-44-9 HCAPLUS

CN Technetate(6-)-99Tc, [N-[2-[(1R)-1-carboxy-2-(mercapto-κS)ethyl]amino-κN]ethyl]-L-cysteiny-L-κN,κS-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-glutamato(9-)]-, hexasodium, (SP-5-35)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—CH₂—CH₂—CO₂⁻—CH₂—CO₂⁻●⁶ Na⁺

REFERENCE COUNT: 437 THERE ARE 437 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1021650 HCAPLUS Full-text

DOCUMENT NUMBER: 143:301456

TITLE: Metal radiolabeled PET imaging agents

INVENTOR(S): Chao, K. S. Clifford; Yang, David J.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 37 pp.

10/732,919

CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005087275	A2	20050922	WO 2005-US7686	20050309

WO 2005087275 A3 20060608

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-552244P P 20040311

US 2004-552661P P 20040311

ED Entered STN: 22 Sep 2005

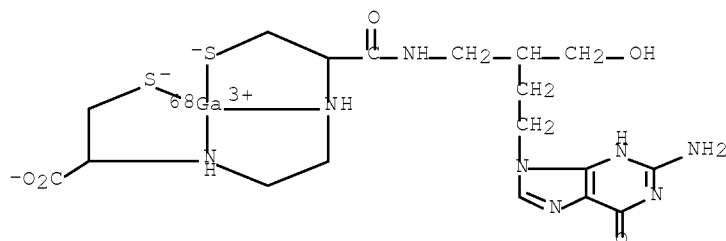
AB The invention relates to radiolabeled PET agents including a radioisotope, a chelator and a specific ligand. The radioisotope may include ^{60}Cu , ^{62}Cu , ^{61}Cu , ^{64}Cu and ^{68}Ga . Generator-produced ^{68}Ga radioisotopes may be used. Specific chelators include N2S2 moieties and N3S moieties. Specific ligands may include purine and pyrimidine bases, particularly adenine and guanine, a sugar-containing base, particularly glucosamine, galactosamine, or mannosamine, or a nitroimidazole analog, such as a 2-nitroimidazole or a 5-nitroimidazole, particularly metronidazole. Radiolabeled agents may be formed by first forming a chelator-ligand complex, which may be stored until it is needed, at which time the radioisotope may be added. Radiolabeled agents may be used in traditional PET imaging or in dynamic PET imaging.

IT ~~864948-70-9~~

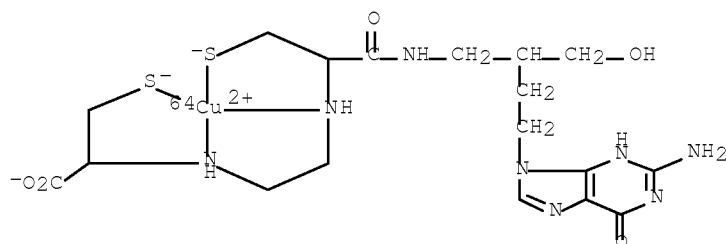
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); BIOL (Biological study); USES (Uses)
 (metal radiolabeled PET imaging agents)

RN 864948-70-9 HCAPLUS

CN Gallium- ^{68}Ga , [N-[2-[[(1R)-2-[[4-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)-2-(hydroxymethyl)butyl]amino]-1-[(mercapto- κS)methyl]-2-oxoethyl]amino- κN]ethyl]-L-cysteinato(3-)- κN , κS]-, (T-4)-(9CI) (CA INDEX NAME)



IT 864948-69-6P
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (metal radiolabeled PET imaging agents)
 RN 864948-69-6 HCAPLUS
 CN Cuprate(1-)-64Cu, [N-[2-[[[(1R)-2-[[4-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)-2-(hydroxymethyl)butyl]amino]-1-[(mercapto-κS)methyl]-2-oxoethyl]amino-κN]ethyl]-L-cysteinato(3-)-κN,κS]-, hydrogen (9CI) (CA INDEX NAME)



● H⁺

L47 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:132235 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 140:195467
 TITLE: Ethylenedicysteine-drug conjugates, compositions and methods for tissue specific disease imaging
 INVENTOR(S): Yang, David J.; Liu, Chun W.; Yu, Dong-fang; Kim, E. Edmond
 PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
 SOURCE: U.S., 58 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6692724	B1	20040217	US 1999-434313	19991025
US 7067111	B1	20060627	US 2000-599152	20000621
US 2005079133	A1	20050414	US 2003-672142	20030926
US 2005084448	A1	20050421	US 2003-672763	20030926
US 2006188438	A1	20060824	US 2006-405334	20060417
PRIORITY APPLN. INFO.:			US 1999-434313	A2 199910

US 2000-587583

B2

200006

02

US 2000-599152

A1

200006

21

ED Entered STN: 18 Feb 2004

AB The invention provides, in a general sense, a new labeling strategy employing ^{99m}Tc chelated with ethylenedicysteine (EC). EC is conjugated with a variety of ligands and chelated to ^{99m}Tc for use as an imaging agent for tissue-specific diseases. The drug conjugates of the invention may also be used as a prognostic tool or as a tool to deliver therapeutics to specific sites within a mammalian body. The conjugated ligand is tissue specific and may be an anticancer agent or glutamate pentapeptide, or an agent targeting folate receptors, tumor apoptosis or tumor hypoxia. Kits for use in tissue-specific disease imaging are also provided. Synthesis, properties and tumor uptake studies of ^{99m}Tc-labeled EC conjugates with folate, metronidazole, nitroimidazole, pentaglutamate, annexin V, and colchicine are reported.

IT 224558-87-6P 378782-42-4P 660823-42-7P
660823-44-9P

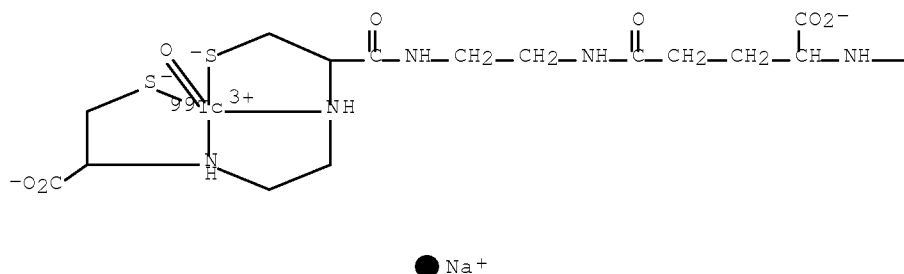
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ethylenedicysteine-conjugated technetium ^{99m}Tc complexes for tumor imaging)

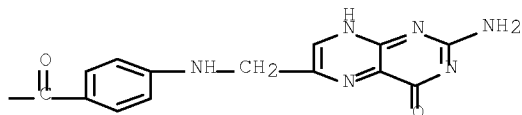
RN 224558-87-6 HCAPLUS

CN Technetate(1-)-⁹⁹Tc, [(2R, 7R, 16S)-16-[4-[[[(2-amino-1,4-dihydro-4-oxo-6-pteridiny1)methyl]amino]benzoyl]amino]-2,7-bis[(mercapto-κS)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-κN3,κN6]oxo-, sodium, (SP-5-35)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



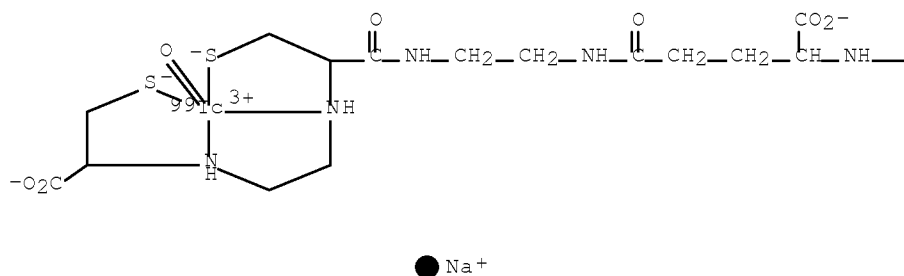
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CN Technetate(1-)-⁹⁹Tc, [(2R, 7R, 16S)-16-[4-[[[(2,4-diamino-6-pteridiny1)methyl]methylamino]benzoyl]amino]-2,7-bis[(mercapto-

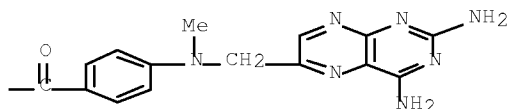
10/732,919

κ S)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-
 κ N3, κ N6]oxo-, sodium, (SP-5-35)- (9CI) (CA INDEX NAME)

PAGE 1-A



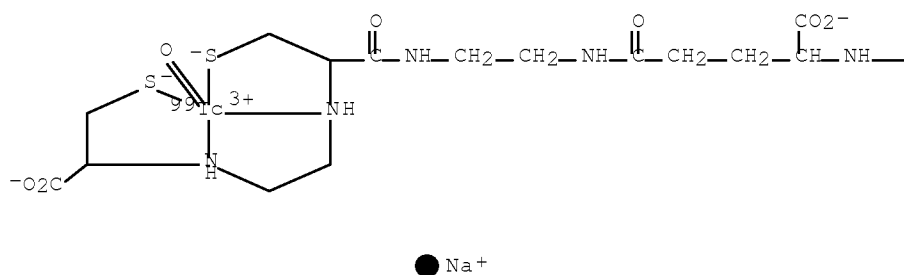
PAGE 1-B



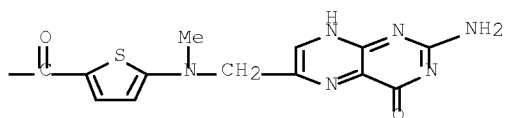
RN 660823-42-7 HCAPLUS

CN Technetate(1-)-99Tc, [(2R,7R,16S)-16-[[[5-[[[2-amino-1,4-dihydro-4-oxo-6-pteridinyl)methyl]methylamino]-2-thienyl]carbonyl]amino]-2,7-bis[(mercapto- κ S)methyl]-8-oxo-3,6,9,12-tetraazaheptadecanedioato(4-)- κ N3, κ N6]-, sodium, (SP-5-35)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

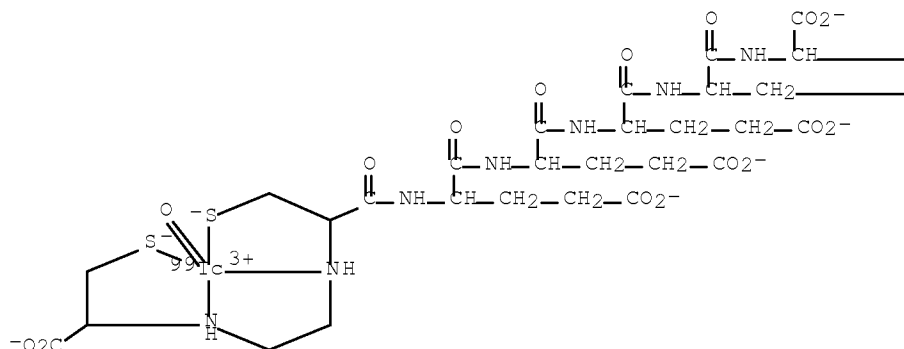


RN 660823-44-9 HCAPLUS

10/732,919

CN Technetate(6-)-99Tc, [N-[2-[(1R)-1-carboxy-2-(mercapto-κS)ethyl]amino-κN]ethyl]-L-cysteinyl-κN, κS-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-glutamato(9-)]-, hexasodium, (SP-5-35)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

$$\begin{array}{c} \text{---CH}_2\text{---CH}_2\text{---CO}_2^- \\ \text{---CH}_2\text{---CO}_2^- \end{array}$$

●6 Na⁺

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L47 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:476220 HCAPLUS Full-text
DOCUMENT NUMBER: 138:183138
TITLE: Preparation and preliminary evaluation of
99mTc-EC-For-MLFK
AUTHOR(S): Verbeke, K.; Verbeke, A.; Vanbilloen, H.;
Verbruggen, A.
CORPORATE SOURCE: Laboratory of Radiopharmaceutical Chemistry,
K.U. Leuven, Louvain, B-3000, Belg.
SOURCE: Nuclear Medicine and Biology (2002), 29(5),
585-592
CODEN: NMBIEO; ISSN: 0969-8051
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 25 Jun 2002

AB For-Met-Leu-Phe-Lys (For-MLFK), a chemotactic peptide that binds with high affinity to granulocytes and monocytes, was labeled with ^{99m}Tc using ethylene dicysteine (EC) as the metal chelating system. EC was selected because of the rapid renal excretion of its ^{99m}Tc -complex and therefore, was expected to enhance the degree of urinary elimination of the peptide-conjugate. ^{99m}Tc -EC-For-MLFK was prepared using a preformed chelate approach. After incubation of ^{99m}Tc -EC-For-MLFK with total blood, 68.1% of the labeled peptide was associated with WBC and 86% of this cell-associated activity was bound to granulocytes. Biodistribution studies in normal mice revealed a very fast blood

10/732,919

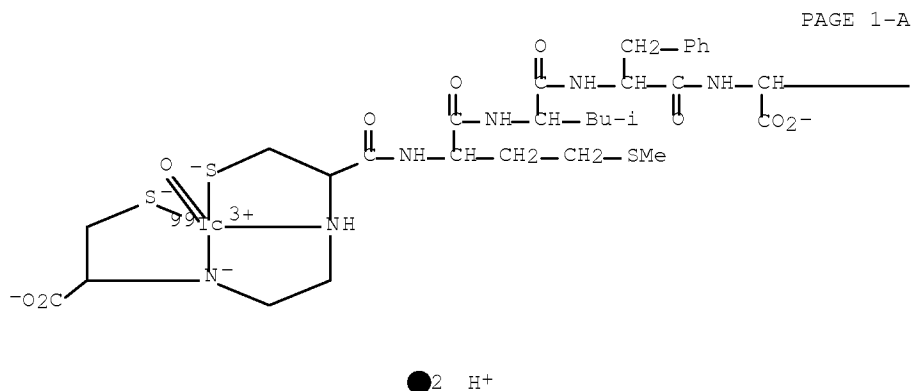
clearance (4.1% and 0.6% of I.D. in blood at resp. 5 and 60 min p.i.). However, elimination of the labeled peptide proceeds mainly via the hepatobiliary system (24.5% of I.D. in liver and 48.8% of I.D. in intestines at 60 min p.i.) and to a much lower degree via the kidneys (17.9% in renal system at 60 min p.i.). From these results, it is concluded that ^{99m}Tc-EC-For-MLFK is not suited to image infections, despite its high binding to granulocytes, since it leads to high, non-specific, abdominal activity.

IT ~~497947-68-9~~

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and preliminary evaluation of ^{99m}Tc-EC-For-MLFK)

RN 497947-68-9 HCAPLUS

CN Technetate(2-)-⁹⁹Tc, [N-[2-[[[(1S)-1-carboxy-2-(mercapto-κS)ethyl]amino-κN]ethyl]-D-cysteinyl-κN,κS-L-methionyl-L-leucyl-L-phenylalanyl-L-lysinato(5-)]-, dihydrogen, (SP-5-35)- (9CI) (CA INDEX NAME)



PAGE 1-B

— (CH₂)₄—NH₂

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:885838 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:17356
 TITLE: Ethylenedicysteine (ec)-drug conjugates, compositions and methods for tissue specific disease imaging
 INVENTOR(S): Yang, David J.; Liu, Chun-wei; Yu, Dong-fang; Kim, E. Edmund
 PATENT ASSIGNEE(S): Board of Regents The University of Texas System, USA
 SOURCE: PCT Int. Appl., 176 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001091807	A2	20011206	WO 2001-US18060	200106

WO 2001091807 A3 20020829

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 7067111 B1 20060627 US 2000-599152

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21

CA 2410906 A1 20011206 CA 2001-2410906

200106
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EP 1286704 A2 20030305 EP 2001-941895

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001011220 A 20030624 BR 2001-11220

200106
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HU 200300951 A2 20030728 HU 2003-951

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JP 2003534388 T 20031118 JP 2001-587819

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NO 2002005729 A 20030129 NO 2002-5729

200211
28

PRIORITY APPLN. INFO.:

US 2000-587583 A1

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02

US 2000-599152 A1

200006
21

US 1999-434313 A2

199910
25

WO 2001-US18060 W

200106
01

ED Entered STN: 07 Dec 2001

AB The invention provides, in a general sense, a new labeling strategy employing ^{99m}Tc chelated with ethylenedicysteine (EC). EC is conjugated with a variety of ligands and chelated to ^{99m}Tc for use as an imaging agent for tissue-specific diseases. The drug conjugates of the invention may also be used as a prognostic tool or as a tool to deliver therapeutics to specific sites within a mammalian body. Kits for use in tissue-specific disease imaging are also provided.

IT 224558-87-6P 378782-47-9P 378782-50-4P
378782-52-6P 378782-55-9P

RL: DGN (Diagnostic use); PKT (Pharmacokinetics); PRP (Properties);
SPN (Synthetic preparation); BIOL (Biological study); PREP
(Preparation); USES (Uses)

(preparation of radiolabeled ethylenedicysteine-drug conjugates for
tumor targeting)

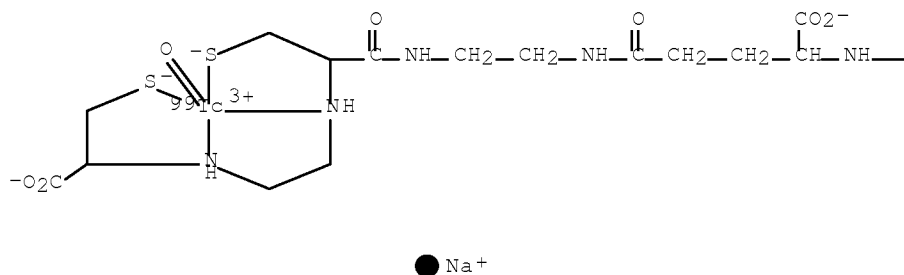
RN 224558-87-6 HCAPLUS

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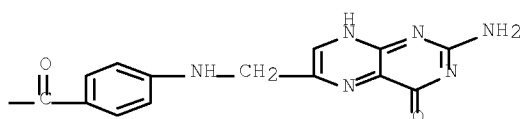
10/732,919

oxo-6-pteridiny]methyl]amino]benzoyl]amino]-2,7-bis[(mercapto-
κS)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-
κN3,κN6]oxo-, sodium, (SP-5-35)-(9CI) (CA INDEX NAME)

PAGE 1-A

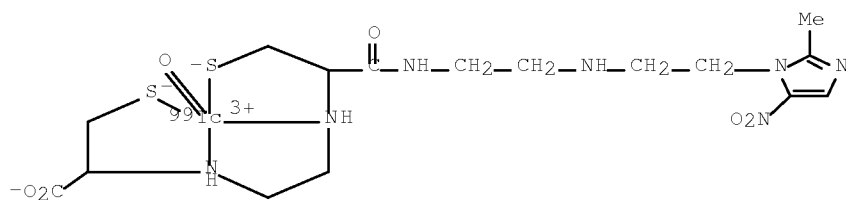


PAGE 1-B



RN 378782-47-9 HCAPLUS

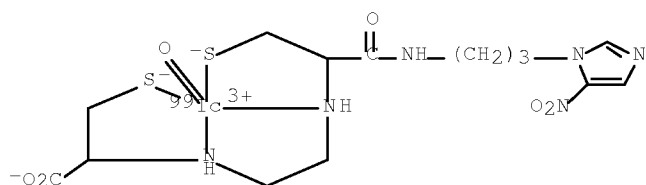
CN Technetium-99Tc, [N-[2-[[[(1R)-1-[(mercapto-κS)methyl]-2-[[2-
[[2-(2-methyl-5-nitro-1H-imidazol-1-yl)ethyl]amino]ethyl]amino]-2-
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κN,κS]oxo-, (SP-5-35)-(9CI) (CA INDEX NAME)



RN 378782-50-4 HCAPLUS

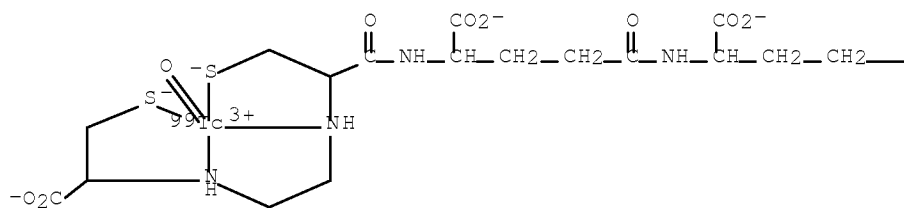
CN Technetium-99Tc, [N-[2-[[[(1R)-1-[(mercapto-κS)methyl]-2-[[3-(5-
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(9CI) (CA INDEX NAME)

10/732,919



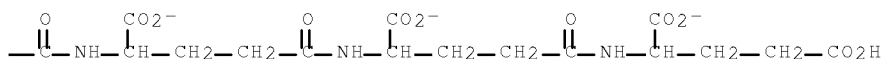
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 κS)ethyl]amino-κN]ethyl]-L-cysteinyl-κN,κS-L-
 γ-glutamyl-L-γ-glutamyl-L-γ-glutamyl-L-γ-
 glutamyl-L-glutamato(8-)]oxo-, pentahydrogen, (SP-5-35)- (9CI) (CA
 INDEX NAME)

PAGE 1-A



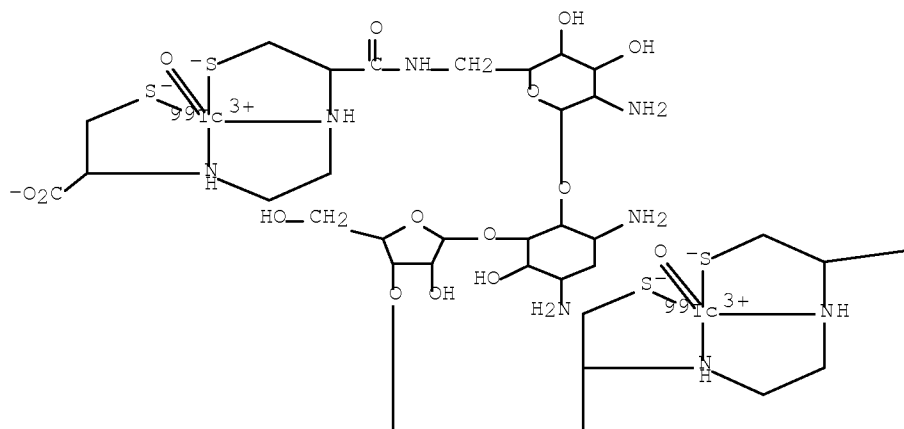
● 5 H⁺

PAGE 1-B



RN 378782-55-9 HCAPLUS
 CN Technetium-99Tc, [μ-[O-6-[[(2R)-2-[[2-[[(1R)-1-carboxy-2-
 (mercapto-κS)ethyl]amino-κN]ethyl]amino-κN]-3-
 (mercapto-κS)-1-oxopropyl]amino]-6-deoxy-β-L-idopyranosyl-
 (1→3)-O-β-D-ribofuranosyl-(1→5)-O-[2-amino-6-
 [[(2R)-2-[[2-[[(1R)-1-carboxy-2-(mercapto-κS)ethyl]amino-
 κN]ethyl]amino-κN]-3-(mercapto-κS)-1-
 oxopropyl]amino]-2,6-dideoxy-α-D-glucopyranosyl-(1→4)]-
 2-deoxy-D-streptaminato(6-)]dioxodi-, stereoisomer (9CI) (CA INDEX
 NAME)

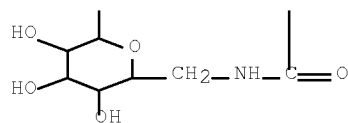
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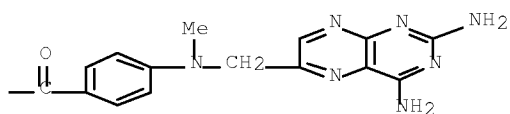
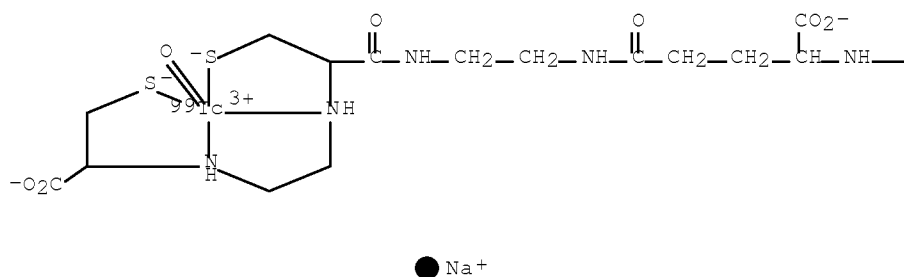
PAGE 1-B

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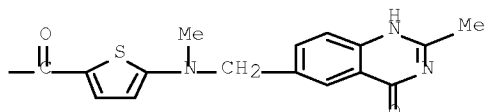
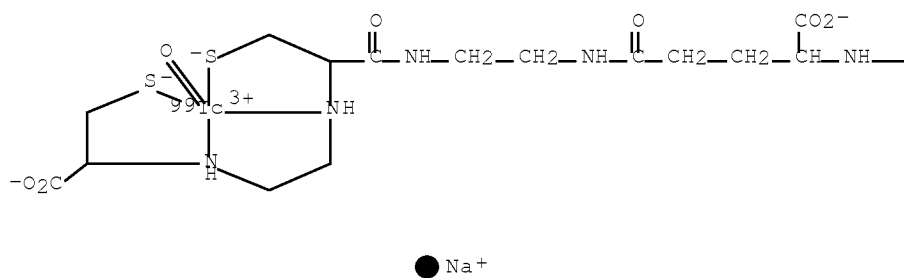
PAGE 2-A



Page 20



RN 378782-44-6 HCAPLUS
 CN Technetate (1-)-99Tc, [(2R,7R,16S)-16-[[[5-[[[1,4-dihydro-2-methyl-4-oxo-6-quinazolinyl)methyl]methylamino]-2-thienyl]carbonyl]amino]-2,7-bis[(mercapto-κS)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-κN3,κN6]oxo-, sodium, (SP-5-35)-(9CI) (CA INDEX NAME)



L47 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:125562 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:334722
 TITLE: 99mTc-ethylenedicysteine-folate: A new tumor

imaging agent. Synthesis, labeling and evaluation in animals

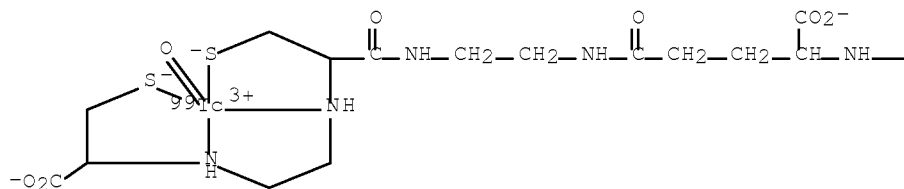
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IT 224558-87-69

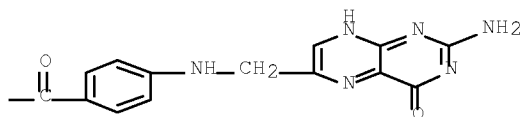
RN 224558-87-6 HCAPLUS

CN Technetate(1-)-99Tc, [(2R,7R,16S)-16-[[4-[[[(2-amino-1,4-dihydro-4-oxo-6-pteridiny]methyl)amino]benzoyl]amino]-2,7-bis[(mercapto-κS)methyl]-8,13-dioxo-3,6,9,12-tetraazaheptadecanedioato(4-)-κN3,κN6]oxo-, sodium, (SP-5-35)-(9CI) (CA INDEX NAME)

PAGE 1-A



● Na⁺



REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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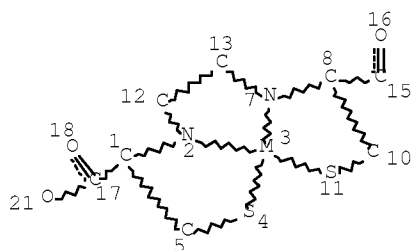
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FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

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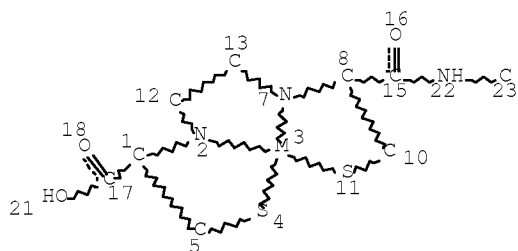
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L39 1 SEA FILE=REGISTRY ABB=ON PLU=ON C18 H31 N9 O4 S2/MF
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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L42 100 SEA FILE=REGISTRY SSS FUL L40
L44 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L46 20 SEA FILE=REGISTRY SUB=L42 SSS FUL L44
 L47 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L46
 L48 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L39
 L49 1 SEA FILE=REGISTRY ABB=ON PLU=ON 84295-19-2/RN
 L50 72 SEA FILE=REGISTRY ABB=ON PLU=ON C8 H16 N2 O4 S2/MF
 L52 241 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 OR (N2S2 (2A)
 (LIGAND? OR CHELAT?))
 L53 1392 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 OR (?ETHYLENEDICYS-
 TEINE? OR ?ETHYLENE (A) DICYS-TEINE?)
 L54 QUE ABB=ON PLU=ON TARGET? (L) IMAG?
 L55 QUE ABB=ON PLU=ON PET OR (POSITRON (2A) EMIS? (2A) TOM
 OGRAPH?)
 L56 QUE ABB=ON PLU=ON RADIONUCL? OR RADIO? (2A) NUCL? OR T
 C OR TECHNETIUM
 L58 23 SEA FILE=HCAPLUS ABB=ON PLU=ON (L52 OR L53) AND L56
 AND (L54 OR L55)
 L59 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 OR L48
 L60 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L58 NOT L59

=> file hcaplus

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L60 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1048518 HCAPLUS Full-text

DOCUMENT NUMBER: 146:41024

TITLE: A novel ^{99m}Tc-labeled testosterone derivative as a potential agent for targeting androgen receptors

AUTHOR(S): Das, Tapas; Banerjee, Sharmila; Samuel, Grace; Bapat, Ketaki; Subramanian, Suresh; Pillai, Maroor R. A.; Venkatesh, Meera

CORPORATE SOURCE: Radiopharmaceuticals Division, Bhabha Atomic Research Centre, Mumbai, 400085, India

SOURCE: Bioorganic & Medicinal Chemistry Letters (2006), 16(22), 5788-5792
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Oct 2006

AB With an insight that ~~ligands~~ possessing a ~~N2S2~~ tetradentate array of donor atoms serve as ideal bifunctional chelating agents (BFCA) in the radiolabeling of target-specific agents, 5-hydroxy-3,7-diazanonan-1,9-dithiol (DAHPEs) with a derivatizable substituent in the form of a hydroxyl group in the backbone was synthesized. The preparation of a steroid conjugate via coupling of this BFCA with testosterone-3-(O-carboxymethyl) oxime and the subsequent radiolabeling of the conjugate under optimized conditions with ^{99m}Tc, the ideal diagnostic ~~radionuclide~~ in nuclear medicine procedures, are reported. The immunoreactivity of the radiolabeled conjugate was demonstrated in a study using anti-testosterone antibodies, wherein the radiolabeled conjugate exhibited significant binding with antiserum to testosterone. Cell-uptake studies in DU145 prostate carcinoma cell line bearing androgen receptors (ARs) and comparison with AR non-bearing breast carcinoma cell line revealed the specific binding of the steroidal moiety with the testosterone receptor.

CC 8-9 (Radiation Biochemistry)

ST ~~technetium~~ testosterone deriv androgen receptor prostate carcinoma imaging

IT Imaging agents

(contrast; ^{99m}Tc-labeled testosterone derivative as for potential targeting androgen receptors)

IT Imaging

(tumor; ^{99m}Tc-labeled testosterone derivative as for potential targeting androgen receptors)IT 916445-04-ODP, ~~Tc~~-^{99m} labeled

RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(99mTc-labeled testosterone derivative as for potential targeting androgen receptors)

L60 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:681452 HCAPLUS Full-text

DOCUMENT NUMBER: 145:130695

TITLE: Conjugates for dual imaging and radiochemotherapy: composition, manufacturing, and applications

INVENTOR(S): Yang, David J.; Yu, Dongfang; Chanda, Mithu; Azhdarinia, Ali; Oh, Changsok; Kim, E. Edward

PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, USA

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 WO 2006074272 A2 20060713 WO 2006-US269
 200601
 05
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
 KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG,
 MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT,
 RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT,
 TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
 IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 US 2006182687 A1 20060817 US 2006-326117
 200601
 05
 PRIORITY APPLN. INFO.: US 2005-641559P P
 200501
 05

ED Entered STN: 14 Jul 2006

AB Compns. and methods for dual ~~imaging~~ and for dual chemotherapy and radiotherapy are disclosed. More particularly, the invention concerns compds. comprising the structure X1-Y-X2, wherein Y comprises two or more carbohydrate residues covalently attached to one another, X1 and X2 are diagnostic or therapeutic moieties covalently attached to Y, provided that when Y does not comprise a glucosamine residue, X1 and X2 are diagnostic moieties. Conjugates consisting of a carbohydrate backbone to which diagnostic and/or therapeutic moieties are attached are used as tumor- ~~targeting~~ agents with dual diagnostic (such as MRI + ~~PET~~) and dual therapeutic (chemotherapy + radiotherapy) capabilities. The present invention also concerns methods of synthesis of these conjugates, application of such compds. for dual ~~imaging~~ and treatment of hyperproliferative disease, and kits for preparing a radiolabeled therapeutic or diagnostic compound

IC ICM A61K

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 8, 9

ST tumor ~~targeting~~ carbohydrate ~~imaging~~ therapeutic agent conjugate

IT Angiogenesis inhibitors

Antimicrobial agents

Antitumor agents

Apoptosis

Chemotherapy

Diagnosis

Drug delivery systems

Gene therapy

Human

Hypoxia

Imaging agents

Immunotherapy

Leukemia

Lymphoma

Neoplasm

Positron-emission tomography

Radiotherapy

Scintigraphic agents

Scintigraphy

Single-photon-emission computed tomography

(conjugates for dual imaging and radiochemotherapy)

IT Amines, biological studies

Radionuclides, biological studies

Thiols, biological studies

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological

study); USES (Uses)

(conjugates for dual imaging and radiochemotherapy)

IT 59-05-2DP, Methotrexate, conjugates 117-96-4DP, Diatrizoate, conjugates 3416-24-8DP, Glucosamine, conjugates 9012-76-4DP, Chitosan, conjugates 15757-14-9DP, Gallium 68, complexes with oligosaccharide conjugates, biological studies 378784-45-3DP, Technetium 99m, complexes with oligosaccharide conjugates, biological studies
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(conjugates for dual imaging and radiochemotherapy)

IT 59-05-2D, Methotrexate, reaction product with polyglucosamine 60-00-4D, Edta, radiolabeled oligosaccharide conjugates, biological studies 67-43-6D, Dtpa, radiolabeled oligosaccharide conjugates 117-96-4D, reaction product with polyglucosamine 1398-61-4, Chitin 1429-50-1D, Edtmp, radiolabeled oligosaccharide conjugates 2418-14-6D, DMSA, radiolabeled oligosaccharide conjugates 2809-21-4D, Hedp, radiolabeled oligosaccharide conjugates 9005-49-6, Heparin, biological studies 9012-76-4, Chitosan 10098-91-6, 90y, biological studies 13967-65-2, 166Ho, biological studies 13982-06-4, Copper 60, biological studies 14119-09-6, 67Ga, biological studies 14158-27-1, 89Sr, biological studies 14276-53-0, Copper 62, biological studies ~~14344-48-0D~~, reaction product with polyglucosamine 14378-26-8, 188Re, biological studies 14391-32-3, 157Gd, biological studies 14913-49-6, 212Bi, biological studies 14998-63-1, 186Re, biological studies 15064-65-0, 201Tl, biological studies 15128-03-7, Copper 61, biological studies 15750-15-9, Indium 111, biological studies 15755-33-6, 72As, biological studies 15757-86-5, Copper 67, biological studies 15766-00-4, 153Sm, biological studies 15776-20-2, 213Bi, biological studies 15827-60-8D, Dtpmp, radiolabeled oligosaccharide conjugates 35110-26-0, Polyglucosamine 35110-26-0D, reaction products with 60239-18-1D, Dota, radiolabeled oligosaccharide conjugates 60239-20-5D, Trita, radiolabeled oligosaccharide conjugates 60239-22-7D, Teta, radiolabeled oligosaccharide conjugates 66516-09-4D, Mag3, radiolabeled oligosaccharide conjugates 89156-33-2D, radiolabeled oligosaccharide conjugates 91987-74-5D, radiolabeled oligosaccharide conjugates 113786-33-7D, Bopta, radiolabeled oligosaccharide conjugates 120041-08-9D, radiolabeled oligosaccharide conjugates 120041-09-0D, radiolabeled oligosaccharide conjugates 132446-35-6D, DOTMP, radiolabeled oligosaccharide conjugates 133081-24-0D, 6-Hydrazinonicotinic acid, radiolabeled oligosaccharide conjugates 136705-18-5D, DOTEPP, radiolabeled oligosaccharide conjugates 138149-64-1D, DOTPP, radiolabeled oligosaccharide conjugates 145089-54-9D, radiolabeled oligosaccharide conjugates 161167-43-7D, DOTPME, radiolabeled oligosaccharide conjugates 175985-20-3D, radiolabeled oligosaccharide conjugates 182132-19-0D, radiolabeled oligosaccharide conjugates
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates for dual imaging and radiochemotherapy)

L60 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:338143 HCAPLUS Full-text

DOCUMENT NUMBER: 144:381973

TITLE: Compositions for detecting hyaluronidase activity in situ and methods of utilizing same

INVENTOR(S): Neeman, Michal; Shiftan, Liora

PATENT ASSIGNEE(S): Israel

SOURCE: U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006078500	A1	20060413	US 2004-959417	20041007
PRIORITY APPLN. INFO.:			US 2004-959417	20041007

ED Entered STN: 13 Apr 2006

AB A composition-of-matter is provided. The composition-of-matter comprising a chelator moiety-hyaluronan complex bound to a solid support. Also provided are methods of in-situ assessing hyaluronidase activity using such compns.

INCL 424009340; 435020000; 536053000

CC 1-6 (Pharmacology)

Section cross-reference(s): 63, 64

IT Antitumor agents

Human

Imaging

Positron-emission tomography

Radiography

X-ray

(compns. for detecting hyaluronidase activity in situ and methods of utilizing same)

IT 7429-91-6, Dysprosium, biological studies 7439-91-0, Lanthanum, biological studies 7439-96-5, Manganese, biological studies 7440-26-8, Technetium, biological studies 7440-47-3, Chromium, biological studies 7440-53-1, Europium, biological studies 7440-54-2, Gadolinium, biological studies 7440-58-6, Hafnium, biological studies 7440-60-0, Holmium, biological studies 7440-64-4, Ytterbium, biological studies 7440-74-6, Indium, biological studies

RL: DGN (Diagnostic use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)

(compns. for detecting hyaluronidase activity in situ and methods of utilizing same)

IT 58-85-5, Biotin 60-00-4, Ethylenediaminetetraacetic acid, processes 67-42-5, Ethylenebis(oxyethylenenitrilo)tetraacetic acid 67-43-6, Diethylenetriaminepentaacetic acid 139-13-9, Nitrilotriacetic acid 150-39-0, N-(Hydroxyethyl)ethylenediaminetriacetic acid 482-54-2, 1,2-Diaminocyclohexane-N,N',N'-tetraacetic acid 869-52-3 ~~14344-48-0~~ 22907-28-4 56491-86-2 60239-18-1, 1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid 60239-22-7, 1,4,8,11-Tetraazacyclotetradecane-N,N',N'',N'''-tetraacetic acid 114873-37-9 115416-38-1 120041-08-9

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(compns. for detecting hyaluronidase activity in situ and methods of utilizing same)

L60 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:310062 HCAPLUS Full-text

DOCUMENT NUMBER: 144:447150

TITLE: Targeted molecular imaging in oncology

AUTHOR(S): Yang, David J.; Kim, E. Edmund; Inoue, Tomio
CORPORATE SOURCE: Department of Experimental Diagnostic Imaging,
The University of Texas M.D. Anderson Cancer
Center, Houston, TX, USA

SOURCE: Annals of Nuclear Medicine (2006), 20(1), 1-11
CODEN: ANMEEEX; ISSN: 0914-7187

PUBLISHER: Japanese Society of Nuclear Medicine

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

ED Entered STN: 04 Apr 2006

AB A review. Improvement of scintigraphic tumor imaging is extensively determined by the development of more tumor specific radiopharmaceuticals. Thus, to improve the differential diagnosis, prognosis, planning and monitoring of cancer treatment, several functional pharmaceuticals have been developed. Application of mol. targets for cancer imaging, therapy and prevention using generator-produced isotopes is the major focus of ongoing research projects. Radionuclide imaging modalities (positron emission tomog., PET; single photon emission computed tomog., SPECT) are diagnostic cross-sectional imaging techniques that map the location and concentration of radionuclide-labeled radiotracers. 99mTc- and 68Ga-labeled agents using ethylenedicycysteine (EC) as a chelator were synthesized and their potential uses to assess tumor targets were evaluated. 99mTc (t1/2 = 6 h, 140 keV) is used for SPECT and 68Ga (t1/2 = 68 min, 511 keV) for PET. Mol. targets labeled with Tc-99m and Ga-68 can be utilized for prediction of therapeutic response, monitoring tumor response to treatment and differential diagnosis. Mol. targets for oncol. research in (1) cell apoptosis, (2) gene and nucleic acid-based approach, (3) angiogenesis (4) tumor hypoxia, and (5) metabolic imaging are discussed. Numerous imaging ligands in these categories have been developed and evaluated in animals and humans. Mol. targets were imaged and their potential to redirect optimal cancer diagnosis and therapeutics were demonstrated.

CC 8-0 (Radiation Biochemistry)

ST review targeted mol imaging oncol cancer

IT Gene, animal

Nucleic acids

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(as mol. targets; targeted mol.
imaging in oncol.)

IT Diagnosis

(cancer; targeted mol. imaging in oncol.)

IT Imaging agents

(contrast; targeted mol. imaging in oncol.)

IT Angiogenesis

Apoptosis

Hypoxia

Metabolism

(mol. targets in; targeted mol.
imaging in oncol.)

IT Imaging

(mol.; targeted mol. imaging in oncol.)

IT Medicine

(oncol.; targeted mol. imaging in oncol.)

IT Diagnosis

(radiodiagnosis; targeted mol. imaging in
oncol.)

IT Drug targets

Human

Neoplasm

Positron-emission tomography

Single-photon-emission computed tomography

(targeted mol. imaging in oncol.)

IT Radionuclides, biological studies

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)

(targeted mol. imaging in oncol.)

IT Imaging

(tumor; targeted mol. imaging in oncol.)

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L60 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:175476 HCAPLUS Full-text

DOCUMENT NUMBER: 145:485062

TITLE: Biodistribution of 99Tcm labeled
ethylenedicycysteine-deoxyglucose in mice

AUTHOR(S): Tang, Jun; Zhou, Jundong; Chen, Jie; Yang, Yi

CORPORATE SOURCE: The Second Affiliated Hospital, Suzhou
University, Suzhou, 215004, Peop. Rep. China

10/732,919

SOURCE: Zhonghua Heyixue Zazhi (2005), 25(3), 179-181
CODEN: CITCDE; ISSN: 0253-9780
PUBLISHER: Jiangsusheng Yuanzi Yixue Yanjiuso
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 27 Feb 2006
AB The biodistributions of 99Tcm labeled ~~ethylenedicysteine~~ -deoxyglucose (EC-DG) in normal mice and S180 sarcoma bearing mice were evaluated. The percentage injected dose per g (%ID/g) of 99Tcm-EC-DG in the organs and tissues including heart, kidney, lung and muscle of the normal mice were calculated. Meanwhile, the radioactivity ratios of ~~target~~ to background (T/NT) of tumor to blood, muscle, lung and liver of S180 sarcoma bearing mice were also calculated, resp. The results showed that %ID/g in kidney was significantly higher than those in other organs, and 99Tcm-EC-DG was not uptaken in brain. The %ID/g decreased rapidly in 1 h of all selected organs except blood. T/NT value of tumor to blood, muscle and lung gradually increased after the injection of 99Tcm-EC-DG, and all reached above 1.0 at the 4th h. The ~~imaging~~ showed that the radioactivity of the tissues surrounding the tumor decreased gradually after the injection, and the tumor site was clearly visualized at the 4th h. 99Tcm-EC-DG could be used as an ~~imaging~~ agent for glucose metabolism of tumor.
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 63
ST ~~technetium~~ radioisotope ~~ethylenedicysteine~~
deoxyglucose sarcoma imaging biodistribution pharmacokinetics
IT Blood
Imaging agents
Kidney
Liver
Lung
Muscle
Sarcoma
Stomach
Tomography
(biodistribution of 99Tcm labeled ~~ethylenedicysteine~~
-deoxyglucose in mice)
IT Biological transport
(uptake; biodistribution of 99Tcm labeled
~~ethylenedicysteine~~-deoxyglucose in mice)
IT 14133-76-7DP, Technetium 99, ~~ethylenedicysteine~~
-glucosamine complex with, biological studies 378230-75-2DP,
complex with Tc-99m
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(biodistribution of 99Tcm labeled ~~ethylenedicysteine~~
-deoxyglucose in mice)
IT 378784-45-3, 99Tcm, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(biodistribution of 99Tcm labeled ~~ethylenedicysteine~~
-deoxyglucose in mice)
L60 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:524970 HCAPLUS Full-text
DOCUMENT NUMBER: 143:48042
TITLE: ~~N2S2 chelate~~-targeting
ligand conjugates
INVENTOR(S): Yang, David J.; Yu, Dong-fang; Oh, Chang-Sok;
Bryant, Jerry L.
PATENT ASSIGNEE(S): Board of Regents, the University of Texas
System, USA; Cell Point LLC
SOURCE: U.S. Pat. Appl. Publ., 68 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005129619

A1

20050616

US 2003-732919

200312

10

PRIORITY APPLN. INFO.:

US 2003-732919

200312

10

OTHER SOURCE(S): MARPAT 143:48042

ED Entered STN: 17 Jun 2005

AB The invention provides, in a general sense, a new labeling strategy employing compds. that are ~~N2S2~~ ~~chelates~~ conjugated to a targeting ligand, wherein the targeting ligand is a disease cell cycle targeting compound, a tumor angiogenesis targeting ligand, a tumor apoptosis targeting ligand, a disease receptor targeting ligand, amifostine, angiostatin, monoclonal antibody C225, monoclonal antibody CD31, monoclonal antibody CD40, capecitabine, a COX-2 inhibitor, deoxycytidine, fullerene, herceptin, human serum albumin, lactose, leuteinizing hormone, pyridoxal, quinazoline, thalidomide, transferrin, or tri-Me lysine. The present invention also pertains to kits employing the compds. of interest, and methods of assessing the pharmacol. of an agent of interest using the present compds.

IC ICM A61K0049-00

ICS A61K0051-00; C07K0016-46; C07F0005-00

INCL 424009340; 424009360; 530391100; 530400000; 534016000

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 8

ST antibody drug conjugate ~~targeted radionuclide~~tumor ~~imaging~~ agent

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(Bad; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(Bak; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(Bax; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(Bcl-2; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(Bcl-xL; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(Bid; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(TRAIL (tumor necrosis factor-related apoptosis-inducing ligand);

~~targeted~~ radiolabeled ligands for tumor ~~imaging~~

and therapy)

IT Tocopherols

RL: NUU (Other use, unclassified); USES (Uses)

(antioxidant; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Neoplasm

Neoplasm

(head and neck; ~~targeted~~ radiolabeled ligands for tumor~~imaging~~ and therapy)

IT Drug delivery systems

(immunoconjugates; ~~targeted~~ radiolabeled ligands for

- tumor imaging and therapy)
- IT Drug delivery systems
 - (immunotoxins; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Antibodies and Immunoglobulins
 - RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 - (monoclonal, conjugates, radiolabeled; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Androgens
- Estrogens
- Peptides, biological studies
- Transferrins
 - RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 - (radiolabeled conjugates; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Uterus, neoplasm
 - (sarcoma; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Albumins, biological studies
 - RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 - (serum, radiolabeled conjugates; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Angiogenesis
- Antioxidants
- Apoptosis
- Chelating agents
- Chromatin
- Head and Neck, neoplasm
- Head and Neck, neoplasm
- Human
 - Imaging agents
- Neoplasm
- Ovary, neoplasm
- Scintigraphic agents
- Scintigraphy
- Test kits
 - (~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Epidermal growth factor receptors
- Gonadotropin receptors
- Gonadotropin-releasing hormone receptor
- Lipid metabolism
- Transferrin receptors
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Sarcoma
 - (uterine; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Reproductive system
 - (vulva, neoplasm; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT Integrins
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - ($\alpha\beta 3$; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT 50-81-7, Vitamin c, uses 59-43-8, Thiamine, uses 65-23-6, Pyridoxine 153-18-4, Rutin
 - RL: NUU (Other use, unclassified); USES (Uses)
 - (antioxidant; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT 50-99-7, Glucose, biological studies 3416-24-8, Glucosamine
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (metabolism; ~~targeted~~ radiolabeled ligands for tumor imaging and therapy)
- IT 603-35-0, Triphenylphosphine, uses 7772-99-8, Stannous chloride,

uses 14844-07-6, Dithionite 15438-31-0, Ferrous ion, uses
22541-90-8, Stannous ion, uses

RL: NUU (Other use, unclassified); USES (Uses)
(reducing agent; ~~targeted~~ radiolabeled ligands for
tumor ~~imaging~~ and therapy)

IT 80449-01-0, Topoisomerase 169592-56-7, Caspase 3 329900-75-6,
Cox-2

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(~~targeted~~ radiolabeled ligands for tumor
~~imaging~~ and therapy)

IT 50-35-1D, Thalidomide, radiolabeled conjugates 56-84-8D, Aspartic
acid, radiolabeled conjugates 56-86-0D, Glutamic acid,
radiolabeled conjugates 56-87-1D, Lysine, radiolabeled conjugates
57-83-0D, Progesterone, radiolabeled conjugates, biological studies
58-61-7D, Adenosine, radiolabeled conjugates, biological studies
63-42-3D, Lactose, radiolabeled conjugates 66-72-8D, Pyridoxal,
radiolabeled conjugates 73-40-5D, Guanine, radiolabeled conjugates
107-15-3D, Ethylenediamine, radiolabeled conjugates 253-82-7D,
Quinazoline, radiolabeled conjugates 541-15-1D, Carnitine,
radiolabeled conjugates 927-68-4D, radiolabeled conjugates
951-77-9D, Deoxycytidine, radiolabeled conjugates 951-77-9D,
Deoxycytidine, reaction product with ~~ethylenedicycysteine~~
9002-67-9D, LH, radiolabeled conjugates 9034-40-6D, LHRH,
radiolabeled conjugates 10098-91-6D, Yttrium 90, conjugated
complexes, biological studies 13967-65-2D, Holmium 166, conjugated
complexes, biological studies 13981-25-4D, Copper 64, conjugated
complexes, biological studies 13982-06-4D, Copper 60, conjugated
complexes, biological studies 14119-09-6D, Gallium 67, conjugated
complexes, biological studies 14158-27-1D, Strontium 89,
conjugated complexes, biological studies 14265-85-1D, Actinium
225, conjugated complexes, biological studies 14276-53-0D, Copper
62, conjugated complexes, biological studies 14276-65-4D,
Gadolinium 153, conjugated complexes, biological studies
14378-26-8D, Rhenium 188, conjugated complexes, biological studies
14392-00-8D, Titanium 45, conjugated complexes, biological studies
14596-12-4D, Iron 59, conjugated complexes, biological studies
14913-49-6D, Bismuth 212, conjugated complexes, biological studies
14998-63-1D, Rhenium 186, conjugated complexes, biological studies
15128-03-7D, Copper 61, conjugated complexes, biological studies
15750-15-9D, Indium 111, conjugated complexes, biological studies
15755-39-2D, Astatine 211, conjugated complexes, biological studies
15757-14-9D, Gallium 68, conjugated complexes, biological studies
15757-86-5D, Copper 67, conjugated complexes, biological studies
15766-00-4D, Samarium 153, conjugated complexes, biological studies
19253-88-4D, Trimethyl lysine, radiolabeled conjugates
20537-88-6D, Amifostine, radiolabeled conjugates 23214-92-8D,
Doxorubicin, radiolabeled conjugates 24991-23-9D, radiolabeled
conjugates 25513-46-6D, Polyglutamic acid, radiolabeled conjugates
25608-40-6D, Polyaspartic acid, radiolabeled conjugates
26063-13-8D, Polyaspartic acid, radiolabeled conjugates
39809-25-1D, Penciclovir, radiolabeled conjugates 55612-21-0D,
FIRU, radiolabeled conjugates 69123-98-4D, Fiau, radiolabeled
conjugates 82410-32-0D, Ganciclovir, radiolabeled conjugates
99685-96-8D, Fullerene, radiolabeled conjugates 104495-35-4D,
radiolabeled conjugates 121563-65-3D, IVFRU, radiolabeled
conjugates 154361-50-9, Capecitabine 154361-50-9D, Capecitabine,
radiolabeled conjugates 162011-90-7D, Rofecoxib, radiolabeled
conjugates 169590-42-5D, Celecoxib, radiolabeled conjugates
180288-69-1D, Herceptin, radiolabeled conjugates 202409-33-4D,
Etoricoxib, radiolabeled conjugates 206067-83-6D, radiolabeled
conjugates 211918-90-0D, radiolabeled conjugates 290374-12-8D,
radiolabeled conjugates 290374-14-0D, radiolabeled conjugates
378784-45-3D, ~~Technetium~~ 99m, conjugated complexes,
biological studies 693260-27-4 693260-27-4D, ~~Tc~~-99
complexes 853731-91-6 853731-92-7

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(~~targeted~~ radiolabeled ligands for tumor

- imaging and therapy)
- IT 3416-24-8D, reaction with ethylenedicysteine, Re-188 complexes 14378-26-8D, Re-188, complexes, biological studies 154069-62-2
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); BIOL (Biological study); USES (Uses)
(targeted radiolabeled ligands for tumor imaging and therapy)
- IT 443-48-1DP, Metronidazole, reaction product with ethylenedicysteineglucose, Re-188 complexes 86090-08-6DP, Angiostatin, radiolabeled conjugates 99685-96-8DP, [5,6]Fullerene-C60-Ih, reaction products with ethylenedicysteine, Tc-99 complexes 154069-62-2DP, conjugates 187888-07-9DP, Endostatin, radiolabeled conjugates 693260-07-0DP, Tc-99 complexes 693260-24-1DP, Tc-99 complexes 693260-30-9P 853731-93-8DP, Tc-99 complexes
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(targeted radiolabeled ligands for tumor imaging and therapy)
- IT 119951-66-5P 693260-24-1P
RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(targeted radiolabeled ligands for tumor imaging and therapy)
- IT 58-60-6 85-87-0, Pyridoxamine 107-15-3, Ethylenediamine, reactions 2949-22-6, Ethyl isocyanatoacetate 14344-48-0, L,L-Ethylenedicysteine 14470-28-1 23284-33-5 39809-25-1, Penciclovir 99685-96-8, Fullerene 169590-42-5, Celecoxib
RL: RCT (Reactant); RACT (Reactant or reagent)
(targeted radiolabeled ligands for tumor imaging and therapy)
- IT 206067-84-7P 693260-03-6P 693260-05-8P 693260-07-0P 693260-23-0P 853731-93-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(targeted radiolabeled ligands for tumor imaging and therapy)
- IT 77-92-9, Citric acid, uses 87-69-4, Tartaric acid, uses 526-95-4, D-Gluconic acid 23351-51-1, Glucoheptonic acid 25525-21-7, Glucaric acid
RL: NUU (Other use, unclassified); USES (Uses)
(transchelator; targeted radiolabeled ligands for tumor imaging and therapy)

L60 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:211145 HCAPLUS Full-text

DOCUMENT NUMBER: 143:73888

TITLE: Tumor specific imaging using Tc-99m and Ga-68 labeled radiopharmaceuticals

AUTHOR(S): Yang, David J.; Azhdarinia, Ali; Kim, E. Edmund

CORPORATE SOURCE: Department of Nuclear Medicine, The University of Texas M.D. Anderson Cancer Center, Houston, TX, 77030, USA

SOURCE: Current Medical Imaging Reviews (2005), 1(1), 25-34

CODEN: CMIRCV; ISSN: 1573-4056

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

ED Entered STN: 10 Mar 2005

AB A review. Improvement of scintigraphic tumor imaging is extensively determined by the development of more tumor specific radiopharmaceuticals. Thus, to improve the differential diagnosis, prognosis, planning and monitoring of cancer treatment, several

functional pharmaceuticals have been developed. Application of mol. targets for cancer imaging, therapy and prevention using generator-produced isotopes are the major focus of ongoing research projects. Radionuclide imaging modalities (positron emission tomog., PET; single photon emission computed tomog., SPECT) are diagnostic cross-sectional imaging techniques that map the location and concentration of radionuclide-labeled radiotracers. ^{99m}Tc- and ⁶⁸Ga-labeled agents using ethylenedicysteine (EC) as a chelator were synthesized and their potential uses to assess tumor targets were evaluated. ^{99m}Tc (t_{1/2}=6 h, 140 keV) is used for SPECT and ⁶⁸Ga (t_{1/2}=68 min, 511 keV) is for PET. Mol. targets labeled with ^{99m}Tc and ⁶⁸Ga can be utilized for prediction of therapeutic response, monitoring tumor response to treatment and differential diagnosis. Mol. targets for oncol. research in (1) cell apoptosis, (2) gene and nucleic acid-based approach, (3) angiogenesis (4) tumor hypoxia, and (5) metabolic imaging are discussed. Numerous imaging ligands in these categories have been developed and evaluated in animals and humans. Mol. targets were imaged and their potential to redirect optimal cancer diagnosis and therapeutics were demonstrated.

CC 8-0 (Radiation Biochemistry)
 ST review technetium 99 gallium 68 PET SPECT tumor
 diagnosis
 IT Diagnosis
 (cancer; tumor specific imaging using ^{99m}Tc and Ga-68
 labeled radiopharmaceuticals)
 IT Diagnosis
 (radiodiagnostic agents; tumor specific imaging using ^{99m}Tc
 -^{99m}Tc and Ga-68 labeled radiopharmaceuticals)
 IT Angiogenesis
 Apoptosis
 Hypoxia
 Positron-emission tomography
 Single-photon-emission computed tomography
 (tumor specific imaging using ^{99m}Tc and Ga-68 labeled
 radiopharmaceuticals)
 IT Imaging
 (tumor; tumor specific imaging using ^{99m}Tc and Ga-68
 labeled radiopharmaceuticals)
 IT 14133-76-7D, Technetium 99, ethylenedicysteine
 conjugates, biological studies 15757-14-9D, Gallium 68,
 ethylenedicysteine conjugates, biological studies
 RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
 (tumor specific imaging using ^{99m}Tc and Ga-68 labeled
 radiopharmaceuticals)

REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L60 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:320164 HCAPLUS Full-text

DOCUMENT NUMBER: 142:88867

TITLE: Infection detection in mice using ^{99m}Tc-labeled
 HYNIC and N₂S₂ chelate
 conjugated to the antimicrobial peptide UBI
 29-41

AUTHOR(S): Welling, Mick M.; Visentin, Roberta; Feitsma,
 Hans I. J.; Lupetti, Antonella; Pauwels, Ernest
 K. J.; Nibbering, Peter H.

CORPORATE SOURCE: Department of Radiology, Division of Nuclear
 Medicine, Leiden University Medical Center
 (LUMC), Leiden, 2300, Neth.

SOURCE: Nuclear Medicine and Biology (2004), 31(4),
 503-509

CODEN: NMBIEO; ISSN: 0969-8051

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Apr 2004

AB Earlier we reported that UBI 29-41, a synthetic peptide corresponding to residues 29-41
 of human ubiquicidin, directly labeled with technetium-99m (^{99m}Tc-UBI 29-41)
 distinguishes bacterial and fungal infections from sterile inflammations in animals.

This study was undertaken to evaluate the radiochem. and biol. characteristics of ^{99m}Tc -UBI 29-41 labeled through the intermediacy of a HYNIC or N2S2 moiety, which were introduced at the N-terminus of UBI 29-41 during solid phase synthesis, with ^{99m}Tc -UBI 29-41. Methods were as follows: UBI 29-41 and HYNIC- or N2S2-conjugated peptide were labeled with ~~technetium~~- 99m . Preps. of these radiolabeled UBI 29-41 were purified by HPLC and Sep-Pak. Next, the stability of these tracers in human serum was challenged for 24 h and their in vitro binding to bacteria assessed. Using scintigraphy up to 2 h after injection of the tracer and ex vivo counts at the last interval we evaluated the ability of the three tracers to detect bacterial infections in mice inoculated with 2×10^7 viable Staphylococcus aureus or Klebsiella pneumoniae as well as their biodistribution. We observed the following results: HPLC anal. of purified ^{99m}Tc -HYNIC-UBI 29-41, ^{99m}Tc -UBI 29-41 and ^{99m}Tc -N2S2-UBI 29-41 revealed that within 60 min >90% of the radioactivity was associated with the peptide. In addition, the stability of these radiolabeled UBI 29-41 peptides in human serum was excellent. All three tracers bound equally well to bacteria in vitro. After i.v. injection into mice with an exptl. bacterial infection ^{99m}Tc -HYNIC-UBI 29-41 and ^{99m}Tc -UBI 29-41 were rapidly removed from the circulation mainly by renal clearance (at $t = 120$ min approx. 60% of the injected dose/g tissue; % ID/g). In contrast, ^{99m}Tc -N2S2-UBI 29-41 was removed mainly by the liver ($t = 120$ min; 52% ID/g) showing deposits in the intestines ($t = 120$ min; 31% ID/g) and to a lesser extent by renal clearance (19% ID/g). All three tracers rapidly detected bacterial infections in mice and highest accumulation (~~target~~ -to-nontarget ratios between 3.2 and 3.6 and between 2.9 and 4.4 for infections with S. aureus and K. pneumoniae, resp.) was found at 2 h after injection of the tracer. In conclusion, purified ^{99m}Tc -HYNIC-UBI 29-41 and ^{99m}Tc -N2S2-UBI 29-41 were as effective as ^{99m}Tc -UBI 29-41 in detecting infections in mice injected i.m. with bacteria. However, ^{99m}Tc -N2S2-UBI 29-41 should not be advised for the ~~imaging~~ of abdominal infections as this tracer, in contrast to the other tracers, is cleared via the liver and intestines.

CC 8-9 (Radiation Biochemistry)
 ST infection ~~technetium~~ 99 HYNIC N2S2 conjugate antimicrobial peptide
 IT Infection
 (bacterial; infection detection in mice using ^{99m}Tc -labeled HYNIC and N2S2 ~~chelate~~ conjugated to antimicrobial peptide UBI 29-41)
 IT Human
 Klebsiella pneumoniae
 Scintigraphic agents
 Scintigraphy
 Staphylococcus aureus
 (infection detection in mice using ^{99m}Tc -labeled HYNIC and N2S2 ~~chelate~~ conjugated to antimicrobial peptide UBI 29-41)
 IT 14133-76-7D, ~~Technetium~~-99, complexes with UBI 29-41, biological studies 216867-99-1D, ~~technetium~~-99 labeled, derivs.
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); BIOL (Biological study); USES (Uses)
 (infection detection in mice using ^{99m}Tc -labeled HYNIC and N2S2 ~~chelate~~ conjugated to antimicrobial peptide UBI 29-41)
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:54939 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:159553
 TITLE: Assessment of epidermal growth factor receptor with ^{99m}Tc -~~ethylenedicysteine~~-C225 monoclonal antibody
 AUTHOR(S): Schechter, Naomi R.; Yang, David J.; Azhdarinia, Ali; Kohanim, Sahar; Wendt, Richard, III; Oh, Chang-Sok; Hu, Mickey; Yu, Dong-Fang; Bryant, Jerry; Ang, K. Kian; Forster, Kenneth M.; Kim, E. Edmund; Podoloff, Donald A.
 CORPORATE SOURCE: Div. Radiation Oncology, Univ. Texas, Houston, TX, USA

SOURCE: Anti-Cancer Drugs (2002), Volume Date 2003,
14(1), 49-56
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 23 Jan 2003

AB Epidermal growth factor receptor (EGFR) plays an important role in cell division and cancer progression, as well as angiogenesis and metastasis. Since many tumor cells exhibit the EGFR on their surface, functional ~~imaging~~ of EGFR provides not only a non-invasive, reproducible, quantifiable alternative to biopsies, but it also greatly complements pharmacokinetic studies by correlating clin. responses with biol. effects. Moreover, mol. endpoints of anti-EGFR therapy could be assessed effectively. C225 is a chimeric monoclonal antibody that ~~targets~~ the human extracellular EGFR and inhibits the growth of EGFR-expressing tumor cells. Also, it has been demonstrated that C225, in combination with chemotherapeutic drugs or radiotherapy, is effective in eradicating well-established tumors in nude mice. We have developed 99mTc-labeled C225 using ~~ethylenedicysteine~~ (EC) as a chelator. This study aimed at measuring uptake of 99mTc-EC-C225 in EGFR tumor-bearing animal models and preliminary feasibility of ~~imaging~~ patients with head and neck carcinomas. Western blot anal. and cytotoxicity assays were used to examine the integrity of EC-C225. Tissue distribution studies of 99mTc-EC-C225 were evaluated in tumor-bearing rodents at 0.5-4 h. biodistribution of 99mTc-EC-C225 in tumor-bearing rodents showed increased tumor-to-tissue ratios as a function of time. and biodistribution studies demonstrated the possibility of using 99mTc-EC-C225 to assess EGFR expression. SPECT ~~images~~ confirmed that the tumors could be visualized with 99mTc-EC-C225 from 0.5 to 4 h in tumor bearing rodents. We conclude that 99mTc-EC-C225 may be useful to assess tumor EGFR expression. This may be useful in the future for selecting patients for treatment with C225.

CC 1-6 (Pharmacology)

Section cross-reference(s): 8

ST technetium99m ~~ethylenedicysteine~~ C225 prepn
pharmacokinetics EGFR imaging angiogenesisinhibitor human; epidermal growth factor receptor monoclonal antibody antiangiogenesis headneck carcinoma

IT Angiogenesis inhibitors

Antitumor agents

Blood

Brain

Drug bioavailability

Heart

Human

Intestine

Kidney

Liver

Lung

Mammary gland, neoplasm

Muscle

Scintigraphy

Single-photon-emission computed tomography

Spleen

Stomach

Thyroid gland

(assessment of epidermal growth factor receptor with 99mTc-~~ethylenedicysteine~~-C225 monoclonal antibody)

IT Epidermal growth factor receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(assessment of epidermal growth factor receptor with 99mTc-~~ethylenedicysteine~~-C225 monoclonal antibody)

IT Antibodies and Immunoglobulins

RL: DGN (Diagnostic use); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fusion products; assessment of epidermal growth factor receptor with 99mTc-~~ethylenedicysteine~~-C225 monoclonal antibody)

IT Carcinoma

Carcinoma

(head and neck squamous cell carcinoma; assessment of epidermal growth factor receptor with 99mTc-~~ethylenedicysteine~~

-C225 monoclonal antibody)

IT Antibodies and Immunoglobulins
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (monoclonal, labeled; assessment of epidermal growth factor receptor with 99mTc-ethylenedicycysteine-C225 monoclonal antibody)

IT Head and Neck, neoplasm
 Head and Neck, neoplasm
 (squamous cell carcinoma; assessment of epidermal growth factor receptor with 99mTc-ethylenedicycysteine-C225 monoclonal antibody)

IT Radiography
 (tumor; assessment of epidermal growth factor receptor with 99mTc-ethylenedicycysteine-C225 monoclonal antibody)

IT 14133-76-7DP, Technetium-99, IMC-C225-ethylenedicycysteine complex, biological studies
 14344-48-ODP, L,L-Ethylenedicycysteine, 99mTc-IMC-C225 complex chelated with 205923-56-4DP, IMC-C225, technetium-99-ethylenedicycysteine complex
 RL: DGN (Diagnostic use); PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (assessment of epidermal growth factor receptor with 99mTc-ethylenedicycysteine-C225 monoclonal antibody)

IT 34592-47-7, L-Thiazolidine-4-carboxylic acid
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (assessment of epidermal growth factor receptor with 99mTc-ethylenedicycysteine-C225 monoclonal antibody)

IT 23288-61-1, Pertechnetate labeled with technetium 99
 25952-53-8, 1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride 82436-78-0, Sulfo-N-hydroxysuccinimide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (assessment of epidermal growth factor receptor with 99mTc-ethylenedicycysteine-C225 monoclonal antibody)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:849373 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:358081
 TITLE: Diagnostic imaging compositions, their methods of synthesis, and use
 INVENTOR(S): Li, Chun; Wen, Xiaoxia; Wu, Qing-Ping; Wallace, Sydney; Ellis, Lee M.
 PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
 SOURCE: PCT Int. Appl., 84 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002087498	A2	20021107	WO 2002-US12510	20020419
WO 2002087498	A3	20031030		
WO 2002087498	A8	20031211		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,			

10/732,919

NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
 TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI,
 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG,
 CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2444483 A1 20021107 CA 2002-2444483

200204
 19

US 2002197261 A1 20021226 US 2002-126369

200204
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US 2003003048 A1 20030102 US 2002-126216

200204
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EP 1389090 A2 20040218 EP 2002-766783

200204
 19

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2001-286453P P

200104
 26

US 2001-334969P P

200112
 04

US 2001-343147P P

200112
 20

WO 2002-US12510 W

200204
 19

ED Entered STN: 08 Nov 2002

AB Conjugate mols. comprising a ligand bonded to a polymer are disclosed. One such conjugate mol. comprises a ligand bonded to a polymer, a chelating agent bonded to the polymer, and a radioisotope chelated to the chelating agent. The conjugate mols. may be useful in detecting and/or treating tumors or biol. receptors. These conjugate mols. may be synthesized without the necessity of preactivation of the ligand using an SCN-polymer-chelating agent precursor. Conjugate mols. incorporating an annexin V ligand are particularly useful for visualizing apoptotic cells. Conjugate mols. incorporating a C225 ligand are particularly useful for targeting tumors expressing EGFR.

IC ICM A61K

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 8

ST indium 111 antibody annexin conjugate tumor imaging;
 immunoconjugate radiolabeled tumor targeting

IT Bone, neoplasm

Brain, neoplasm

Diagnostic agents

Drug delivery systems

Drug toxicity

Head and Neck, neoplasm

Head and Neck, neoplasm

Human

Hypoxia

Infection

Inflammation

Leukemia

Liver, neoplasm

Lung, neoplasm

Mammary gland, neoplasm

Multiple sclerosis

Neoplasm
 Ovary, neoplasm
 Pancreas, neoplasm
~~Positron-emission tomography~~
 Prostate gland, neoplasm
 Radiopharmaceuticals
 Regeneration, animal
 Rheumatoid arthritis
 Scintigraphy
 Sick cell anemia
 Single-photon-emission computed tomography
 Surgery
 Thalassemia
 Transplant rejection

(diagnostic imaging compns. comprising radiolabeled conjugates)
 IT 60-00-4D, EDTA, radiolabeled conjugates 295-37-4D, Cyclam,
 radiolabeled conjugates 365-08-2D, DTPP, radiolabeled conjugates
 482-54-2D, 1,2-Cyclohexanediamine-N,N,N',N'-tetraacetic acid,
 radiolabeled conjugates 1429-50-1D, EDTMP, radiolabeled conjugates
 2418-14-6D, Dimercaptosuccinic acid, radiolabeled conjugates
 2809-21-4D, HEDP, radiolabeled conjugates 3565-84-2D, Cy-DTPA,
 radiolabeled conjugates 3599-32-4, Indocyanine green 9002-89-5D,
 Polyvinyl alcohol, radiolabeled conjugates 9003-01-4D, Polyacrylic
 acid, radiolabeled conjugates 9003-39-8D, Polyvinyl pyrrolidone,
 radiolabeled conjugates 9004-54-0D, Dextran, radiolabeled
 conjugates 9004-61-9D, Hyaluronic acid, radiolabeled conjugates
 9012-76-4D, Chitosan, radiolabeled conjugates 9044-05-7D,
 Carboxymethyl dextran, radiolabeled conjugates 10098-91-6D,
 Yttrium 90, radiolabeled conjugates, biological studies
 13981-25-4D, Copper 64, radiolabeled conjugates, biological studies
 14119-09-6D, Gallium 67, conjugates labeled with, biological studies
~~14344-48-8D~~, radiolabeled conjugates 14391-63-0D, Rubidium
 82, conjugates labeled with, biological studies 14809-53-1D,
 Yttrium 86, radiolabeled conjugates, biological studies
 15064-65-0D, Thallium 201, radiolabeled conjugates, biological
 studies 15735-70-3D, Platinum 193, radiolabeled conjugates,
 biological studies 15757-14-9D, Gallium 68, conjugates labeled
 with, biological studies 15757-86-5D, Copper 67, radiolabeled
 conjugates, biological studies 15827-60-8D, DTPMP, radiolabeled
 conjugates 25104-13-6D, Poly(D-glutamic acid), radiolabeled
 conjugates 25104-18-1D, Polylysine, radiolabeled conjugates
 25322-69-4D, Polypropylene oxide, radiolabeled conjugates
 25608-40-6D, Poly(L-aspartic acid), radiolabeled conjugates
 26063-13-8D, Poly(L-aspartic acid), radiolabeled conjugates
 27878-59-7D, Poly(2-hydroxyethyl L-glutamine), radiolabeled
 conjugates 27881-01-2D, Poly(D-aspartic acid), radiolabeled
 conjugates 27881-03-4D, Poly(DL-aspartic acid), radiolabeled
 conjugates 38000-06-5D, Polylysine, radiolabeled conjugates
 49717-32-0D, radiolabeled conjugates 60239-18-1D, DOTA,
 radiolabeled conjugates 60239-20-5D, TRITA, radiolabeled
 conjugates 60239-22-7D, TETA, radiolabeled conjugates
 62031-54-3D, FGF, radiolabeled conjugates 62229-50-9D, EGF,
 radiolabeled conjugates 72772-21-5D, radiolabeled conjugates
 86090-08-6D, Angiostatin, radiolabeled conjugates 91987-74-5D,
 DOTP, radiolabeled conjugates 104162-48-3D, DOTMA, radiolabeled
 conjugates 113786-33-7D, BOPTA, radiolabeled conjugates
 120041-08-9D, HP-DO3A, radiolabeled conjugates 120041-09-0D,
 radiolabeled conjugates 131418-52-5D, radiolabeled conjugates
 132446-35-6D, DOTMP, radiolabeled conjugates 133081-24-0D,
 6-Hydrazinonicotinic acid, radiolabeled conjugates 136705-18-5D,
 DOTE, radiolabeled conjugates 138149-64-1D, DOTPP, radiolabeled
 conjugates 145089-54-9D, DOTBzP, radiolabeled conjugates
 158414-87-0D, Cy2-DTPA, radiolabeled conjugates 161167-43-7D,
 DOTPME, radiolabeled conjugates 174722-31-7D, Rituxan,
 radiolabeled conjugates 180288-69-1D, Herceptin, radiolabeled
 conjugates 186270-49-5D, Angiopoietin 1, radiolabeled conjugates
 187888-07-9D, Endostatin, radiolabeled conjugates 194368-66-6D,

10/732,919

Angiopoietin 2, radiolabeled conjugates 215369-21-4D, DC101,
radiolabeled conjugates 221230-66-6D, radiolabeled conjugates
244082-19-7D, radiolabeled conjugates 474424-15-2D, radiolabeled
conjugates

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(diagnostic imaging compns. comprising radiolabeled conjugates)

IT 14133-76-7D, Technetium 99, radiolabeled conjugates,
biological studies 14885-78-0D, Indium 113, radiolabeled
conjugates, biological studies

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(metastable; diagnostic imaging compns. comprising radiolabeled
conjugates)

L60 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:449640 HCAPLUS Full-text

DOCUMENT NUMBER: 137:33538

TITLE: Preparation of amino acid derivatives used as
perturbed membrane-binding compounds for
diagnostic and therapeutic applications

INVENTOR(S): Ziv, Ilan; Shirvan, Anat; Ebner, Sharon

PATENT ASSIGNEE(S): NST Neurosurvival Technologies Ltd., Israel

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

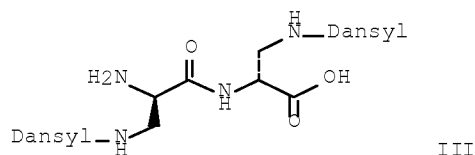
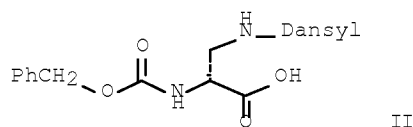
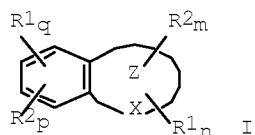
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 2002046147	A2	20020613	WO 2001-IB2282	200112 03
WO 2002046147	A3	20031224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, VZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2436601	A1	20020613	CA 2001-2436601	200112 03
AU 2002018431	A5	20020618	AU 2002-18431	200112 03
EP 1401420	A2	20040331	EP 2001-999555	200112 03
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
BR 2001015970	A	20040810	BR 2001-15970	200112 03
JP 2004528275	T	20040916	JP 2002-547886	200112 03
US 2004082499	A1	20040429	US 2003-433668	200310 31
US 2005244812	A1	20051103	US 2005-172934	200507

PRIORITY APPLN. INFO.:	IL 2000-140114	A	05 200012 06
	IL 2001-141571	A	200102 21
	IL 2001-145210	A	200108 30
	WO 2001-IB2282	W	200112 03
	US 2003-433668	A2	200310 31

OTHER SOURCE(S): MARPAT 137:33538
 ED Entered STN: 14 Jun 2002
 GI



AB The present invention provides preparation and uses of perturbed membrane-binding compds. (PMBC) I that bind selectively to cells undergoing perturbations and alterations of their normal membrane organization, while binding to a lesser degree to cell having membranes of normal organization [Z =cycloalkyl, cycloalkenyl, heterocyclyl, aryl, heteroaryl; X = CH, CH2, N, NH, O, S; n, m, q, p = 0-1; wherein n + q = 1; m + p = 1; R1 = A, L-A; L = D, U, U-D, D-U, D-U-O, O-U-D, D-U-NH, NH-U-D, D-U-D, U-D-U; U = H, alkylene, alkenylene, cycloalkenylene, aryl, heterocycloalkylene, heterocycloalkenylene, heteroaryl; D = O, SOO-2, SO2NH, NHSO2, NH, PO, PO2, PO2H, etc.; A = charged moieties at pH of about 7 when e = 1; when e = 2 or 3, A = polar uncharged moieties and charged moieties at pH of about 7; R2 = WR3b; W = null, secondary or tertiary amine, O, S, D; R3 = H, alkyl, alkenyl, b = 1-3; when e = 2 or 3, the C groups are linked to each other either directly or through an L moiety]. I can selectively bind to cells undergoing perturbation of their normal organization of membrane (PNOM), while binding to a much lesser degree to cells which maintain the normal organization of their membrane. The selective binding of I may be used for detection of cells or cell-derived particles, which contain perturbed membranes (PM) used for the diagnosis of diseases in which cells undergo PNOM or in a therapeutic application used to target therapeutically useful drugs to organs and tissues in the body wherein PNOM occurs, e.g., regions of cell death, thrombus formation or inflammation and also to clear body fluids from cells having PM, or of larger structures comprising such membranes, such as

emboli circulating in the blood. Examples include synthesis of several examples of I, binding of I to activated red blood cells, apoptotic cells, activated platelets, detection of apoptotic cells in-vivo within a tumor and detection of chemotherapy-induced apoptosis of small intestine epithelium. For instance, D-Z-asparagine was converted in 4 steps to II. The deprotected Me ester of II was coupled to II (DCC, NHS) and the adduct saponified and deprotected to give III.

IC ICM C07C0311-00

CC 34-3 (Amino Acids, Peptides, and Proteins)

IT Fluorescence

Positron-emission tomography

Tomography

X-ray

(method for detection of peptide derivs. used to identify cells undergoing perturbation of normal organization of membrane)

IT X-ray spectroscopy

(radioisotope-induced, Tc-99, In-111; method for detection of peptide derivs. used to identify cells undergoing perturbation of normal organization of membrane)

IT ~~84295-19-2~~ 202582-38-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(linker for drugs to solid phase; metal chelators; amino acid derivs. as perturbed membrane-binding compds. for diagnostic and therapeutic applications)

L60 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:446909 HCAPLUS Full-text

DOCUMENT NUMBER: 138:1753

TITLE: Assessment of antiangiogenic effect using 99mTc-EC-endostatin

AUTHOR(S): Yang, David J.; Kim, Kil-Dong; Schechter, Naomi R.; Yu, Dong-Fang; Wu, Peng; Azhdarinia, Ali; Roach, Jennifer S.; Kalimi, Saady K.; Ozaki, Kaoru; Fogler, William E.; Bryant, Jerry L.; Herbst, Roy; Abbruzzes, James; Kim, E. Edmund; Podoloff, Donald A.

CORPORATE SOURCE: Department of Nuclear Medicine, The University of Texas M. D. Anderson Cancer Center, Houston, TX, USA

SOURCE: Cancer Biotherapy & Radiopharmaceuticals (2002), 17(2), 233-246

CODEN: CBRAFJ; ISSN: 1084-9785

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 Jun 2002

AB Tumor vascular d. may provide a prognostic indicator of metastatic potential or survival. The purpose of this study was to develop 99mTc-~~ethylenedicycysteine~~-endostatin (99mTc-EC-endostatin) for the evaluation of anti-angiogenesis therapy. 99mTc-EC-endostatin was prepared by conjugating ~~ethylenedicycysteine~~ (EC) to endostatin, followed by adding pertechnetate and tin chloride. Radiochem. purity was >95%. In vitro cell viability, affinity and TUNEL assays were performed. Tissue distribution and planar ~~imaging~~ of radiolabeled endostatin were determined in tumor-bearing rats. To assess anti-angiogenic treatment response, rats were treated with endostatin, paclitaxel and saline, followed by ~~imaging~~ with 99mTc-EC-endostatin. Tumor response to endostatin therapy in tumor-bearing animal models was assessed by correlating tumor uptake dose with microvessel d., VEGF, bFGF and IL-8 expression during endostatin therapy. Results: In vitro cell viability and TUNEL assays indicated no marked difference between EC-endostatin and endostatin. Cellular uptake assay suggests that endostatin binds to endostatin receptor. Biodistribution of 99mTc-EC-endostatin in tumor-bearing rats showed increased tumor-to-tissue count d. ratios as a function of time. Tumor uptake (%ID/g) of 99mTc-EC-endostatin was 0.2-0.5. Planar ~~images~~ confirmed that the tumors could be visualized clearly with 99mTc-EC-endostatin. The optimal time for ~~imaging~~ using radiolabeled endostatin was 2 h. 99mTc-EC-endostatin could assess treatment response. There was a correlation between tumor uptake and cellular ~~targets~~ expression. The results indicate that it is feasible to use 99mTc-EC-endostatin to assess efficiency of anti-angiogenesis therapy.

CC 8-9 (Radiation Biochemistry)

Section cross-reference(s): 1

ST ~~technetium 99m ethylenedicysteine~~ endostatin
angiogenesis inhibitor tumor imaging

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(endostatin, endostatin binding to; 99mTc-
~~ethylenedicysteine~~-endostatin for evaluation of
anti-angiogenesis therapy)

IT Imaging
(tumor; 99mTc-~~ethylenedicysteine~~-endostatin for
evaluation of anti-angiogenesis therapy)

IT Angiogenesis inhibitors
(99mTc-~~ethylenedicysteine~~-endostatin for evaluation of
anti-angiogenesis therapy)

IT 14133-76-7DP, 99Tc, endostatin-ethylenedicystein conjugate labeled
with, biological studies 14344-48-ODF, L,L-
~~Ethylenedicysteine~~, endostatin conjugate, 99Tc-labeled
187888-07-9DP, Endostatin, ethylenedicystein conjugate, 99Tc-labeled
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(99mTc-~~ethylenedicysteine~~-endostatin for evaluation of
anti-angiogenesis therapy)

IT 33069-62-4, Paclitaxel
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(99mTc-~~ethylenedicysteine~~-endostatin for evaluation of
anti-angiogenesis therapy)

IT 1892-57-5, 1-Ethyl-3-(3-dimethylaminopropyl) carbo-diimide
82436-78-0, N-Hydroxysulfosuccinimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(99mTc-~~ethylenedicysteine~~-endostatin for evaluation of
anti-angiogenesis therapy)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L60 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:796001 HCAPLUS Full-textTITLE: Chlorophyll-a based bis-aminoethanethiol and
modified DTPA conjugates as diagnostic and
therapeutic agents.AUTHOR(S): Li, Guolin; Ma, Bing; Grossman, Zachary;
Dougherty, Thomas J.; Pandey, Ravindra K.CORPORATE SOURCE: Nuclear Medicine, Roswell Park Cancer Institute,
Buffalo, NY, 14263, USASOURCE: Abstracts of Papers, 220th ACS National Meeting,
Washington, DC, United States, August 20-24,
2000 (2000) MEDI-004
CODEN: 69FZC3

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal; Meeting Abstract

LANGUAGE: English

ED Entered STN: 14 Nov 2000

AB In order to develop long-wavelength absorbing photosensitizers for photodynamic therapy (PDT), certain chlorophyll a analogs demonstrated high tumor uptake and proved to be efficient photosensitizers for the treatment of various types of cancers. Recently, we have developed efficient methodologies for the preparation of the corresponding N2S2 and modified DTPA conjugates. These chelates are "bifunctional" because, they are capable to bind to Tc-99m (N2S2 ligand), In-111 and Gd (modified DTPA ligand) at one site and ~~target~~ specific vehicles (photosensitizers) at the other end. Interestingly, the presence of the ligating groups did not diminish their singlet oxygen producing efficacy, a key cytotoxic agent for the destruction of tumors by PDT. The high uptake of these conjugates, therefore, presents the possibility of using a single mol. for both successful nuclear imaging and then for photodynamic therapy. The synthesis and preliminary biol. data obtained from these compds. will be presented.

L60 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:797954 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:160324
 TITLE: Synthesis of N2S2 conjugates of the highly specific mitochondrial diazepam binding inhibitor (DBI) receptor complexes
 AUTHOR(S): Li, Guolin; Ma, Bing; Missert, Joseph R.; Grossman, Zachary D.; Pandey, Ravindra K.
 CORPORATE SOURCE: Department of Nuclear Medicine, Roswell Park Cancer Institute, Buffalo, NY, 14263, USA
 SOURCE: Heterocycles (1999), 51(12), 2855-2860
 CODEN: HTCYAM; ISSN: 0385-5414
 PUBLISHER: Japan Institute of Heterocyclic Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 19 Dec 1999
 AB A novel approach for the synthesis of N2S2 ligands conjugated with 2-phenylindole analogs known as mitochondrial diazepam binding inhibitor receptor complexes (previously known as peripheral-type benzodiazepine receptor), as possible target specific 99mTc imaging agents is described.
 CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 1, 8, 27
 ST mitochondrial DBI receptor phenylindole conjugate prepn;
 technetium phenylindole conjugate mitochondrial DBI receptor prepn
 IT Proteins, specific or class
 RL: BUU (Biological use, unclassified); BIOL (Biological study);
 USES (Uses)
 (DBI (diazepam binding inhibitor); preparation of phenylindole analogs of N2S2 conjugates of highly specific mitochondrial diazepam binding inhibitor (DBI) receptor complexes as possible target specific 99mTc imaging agents)
 IT Benzodiazepine receptors
 RL: BUU (Biological use, unclassified); BIOL (Biological study);
 USES (Uses)
 (peripheral-type; preparation of phenylindole analogs of N2S2 conjugates of highly specific mitochondrial diazepam binding inhibitor (DBI) receptor complexes as possible target specific 99mTc imaging agents)
 IT Imaging agents
 (preparation of phenylindole analogs of N2S2 conjugates of highly specific mitochondrial diazepam binding inhibitor (DBI) receptor complexes as possible target specific 99mTc imaging agents)
 IT 96-32-2, Methyl bromoacetate 124-09-4, 1,6-Hexanediamine, reactions 156-57-0, 2-Aminoethanethiol hydrochloride 824-94-2, p-Methoxybenzyl chloride 4567-06-0 23288-61-1, 99-Tc-pertechnetate 152863-83-7 257881-23-5 257881-24-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (for preparation of phenylindole analogs of N2S2 conjugates of highly specific mitochondrial diazepam binding inhibitor (DBI) receptor complexes as possible target specific 99mTc imaging agents)
 IT 4662-03-7P 22876-65-9P 193481-73-1P 228253-42-7P
 257881-21-3P 257881-22-4P 257881-27-9P 257881-28-0P
 257881-29-1P 257881-30-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (for preparation of phenylindole analogs of N2S2 conjugates of highly specific mitochondrial diazepam binding inhibitor (DBI) receptor complexes as possible target specific 99mTc imaging agents)
 IT 257881-25-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (for preparation of phenylindole analogs of N2S2 conjugates of highly specific mitochondrial diazepam binding inhibitor (DBI) receptor

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complexes as possible ~~target~~ specific ^{99m}Tc
imaging agents)

IT 257881-31-5P 257881-32-6P 257881-33-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of phenylindole analogs of N2S2 conjugates of highly
specific mitochondrial diazepam binding inhibitor (DBI) receptor
complexes as possible ~~target~~ specific ^{99m}Tc
imaging agents)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L60 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:347814 HCAPLUS Full-text

DOCUMENT NUMBER: 127:30947

TITLE: Clinical evaluation of ~~technetium~~
-^{99m}Tc-L,L-ethylenedicycysteine in
patients with chronic renal failure

AUTHOR(S): Prvulovich, Elizabeth M.; Bomanji, Jamshed B.;
Waddington, Wendy A.; Rudrasingham, Ponnuthurai;
Verbruggen, Alfons M.; Ell, Peter J.

CORPORATE SOURCE: Inst. Nuclear Medicine, Univ. College London
Medical School, London, UK

SOURCE: Journal of Nuclear Medicine (1997), 38(5),
809-814

CODEN: JNMEAQ; ISSN: 0161-5505

PUBLISHER: Society of Nuclear Medicine

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 04 Jun 1997

AB ~~Technetium~~-^{99m}Tc-L,L-ethylenedicycysteine (^{99m}Tc-L,L-EC), a new renal radiopharmaceutical,
has been shown to have similar excretion characteristics but a higher plasma clearance
than ^{99m}Tc-mercaptoacetyltriglycine (^{99m}Tc-MAG3) in normal volunteers and patients with
obstructive nephropathy. This study evaluated ^{99m}Tc-L,L-EC in patients with chronic
renal failure. The clearance of ^{99m}Tc-L,L-EC was compared with that of ¹²⁵I-hippuran
in 26 patients with varying degrees of chronic renal impairment (serum creatinine 168-
1163 μ mol/L). All 26 patients also were ~~imaged~~ with ^{99m}Tc-L,L-EC (70-80 MBq). Fifteen
patients had further ~~imaging~~ with ^{99m}Tc-MAG3 (100 MBq) the following day. A subjective
anal. of the ^{99m}Tc-L,L-EC ~~images~~ revealed that all were of acceptable quality
regardless of creatinine level. In the 15 patients who were ~~imaged~~ with both ^{99m}Tc-
L,L-EC and ^{99m}Tc-MAG3, general ~~image~~ quality and ~~target~~-to-background ratios were
similar. Time-activity curves and mean parenchymal transit times obtained with the two
agents were almost identical. Plasma clearance values (mean \pm s.d.) of ^{99m}Tc-L,L-EC
and ¹²⁵I-hippuran were 81 \pm 68 mL/min and 114 \pm 104 mL/min, resp. Mean ^{99m}Tc-L,L-EC
clearance was 71% of the mean ¹²⁵I-hippuran value. ~~Technetium~~ -^{99m}Tc-L,L-EC provides
equally high-quality ~~images~~ to ^{99m}Tc-MAG3 in patients with chronic renal failure.
~~Technetium~~-^{99m}Tc-L,L-EC clearance more closely resembles that of hippuran than does
^{99m}Tc-MAG3 clearance. These features together with its ease of preparation make ^{99m}Tc-
L,L-EC an attractive alternative to ^{99m}Tc-MAG3 in patients with chronic renal failure.

CC 8-9 (Radiation Biochemistry)

ST ~~technetium~~ ^{99m} ethylenedicycysteine kidney failure
imaging

IT Imaging
(clin. evaluation of ~~technetium~~-^{99m}Tc-L,L-
ethylenedicycysteine in human patients with chronic renal
failure)

IT Kidney, disease
(failure, chronic; clin. evaluation of ~~technetium~~
-^{99m}Tc-L,L-ethylenedicycysteine in human patients with
chronic renal failure)

IT 154069-62-2

RL: BAC (Biological activity or effector, except adverse); BOC
(Biological occurrence); BPR (Biological process); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological
study); OCCU (Occurrence); PROC (Process); USES (Uses)
(clin. evaluation of ~~technetium~~-^{99m}Tc-L,L-

10/732,919

ethylenedicysteine in human patients with chronic renal failure)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:869518 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:250202
 TITLE: Preparation of radiolabeled annexins for diagnostic imaging of thrombi
 INVENTOR(S): Kasina, Sudhakar; Dewhurst, Timothy A.; Reno, John M.; Tait, Jonathan; Stratton, John
 PATENT ASSIGNEE(S): Neorx Corp., USA
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 5
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9519791	A1	19950727	WO 1995-US953	19950123
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2180555	A1	19950727	CA 1995-2180555	19950123
CA 2180555	C	20041214		
EP 743861	A1	19961127	EP 1995-913955	19950123
EP 743861	B1	20030416		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT, SE				
JP 09509050	T	19970916	JP 1995-519734	19950123
JP 3664727	B2	20050629		
AT 237366	T	20030515	AT 1995-913955	19950123
WO 9534315	A1	19951221	WO 1995-US7599	19950613
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10504534	T	19980506	JP 1995-502468	19950613
EP 1364964	A1	20031126	EP 2003-11344	19950613
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT				
CA 2206274	A1	19960613	CA 1995-2206274	19951206
WO 9617618	A1	19960613	WO 1995-US15851	19951206
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT,				

10/732,919

SE					
EP 799050	A1	19971008	EP 1995-942562		199512 06
EP 799050	B1	20040811			
R: DE, FR, GB					
JP 10512852	T	19981208	JP 1995-517741		199512 06
EP 1486509	A2	20041215	EP 2004-18920		199512 06
EP 1486509	A3	20050323			
R: DE, FR, GB					
PRIORITY APPLN. INFO.:			US 1994-185660	A2	199401 24
			US 1994-261064	A	199406 16
			US 1994-351653	A	199412 07
			WO 1995-US953	W	199501 23
			EP 1995-923885	A3	199506 13
			WO 1995-US7599	W	199506 13
			EP 1995-942562	A3	199512 06
			WO 1995-US15851	W	199512 06

ED Entered STN: 21 Oct 1995

AB Radiolabeled annexins useful for imaging vascular thrombi are disclosed, as are methods for their preparation. A procedure is described for preparing an annexin V-N²³⁵2 chelate conjugate containing ^{99m}Tc; the conjugate was used in thrombus imaging. Also described are a method for producing a cell expression clone of annexin V and a procedure for modifying annexin V.

IC ICM A61K0043-00

ICS A61K0037-00

CC 8-9 (Radiation Biochemistry)

IT Plasmid and Episome

(~~PST~~-12a-PAP1, 3/7/94, clone 1; radiolabeled annexin conjugate preparation for diagnostic imaging of thrombi)

IT Coordination compounds

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(~~chelates~~, conjugates, N²³⁵2; radiolabeled annexin conjugate preparation for diagnostic imaging of thrombi)

IT 14133-76-7, Technetium-99, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(metastable; radiolabeled annexin conjugate preparation for diagnostic imaging of thrombi)

L60 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:204047 HCAPLUS Full-text

DOCUMENT NUMBER: 118:204047

TITLE: Dicarboxylate diamide dimercaptide (N2S2)
technetium-99m complexes: synthesis and
biological evaluation as potential renal
radiopharmaceuticalsAUTHOR(S): Canney, Daniel J.; Billings, Jeffrey;
Francesconi, Lynn C.; Guo, Yu Zhi; Haggerty,
Brian S.; Rheingold, Arnold L.; Kung, Hank F.
CORPORATE SOURCE: Dep. Radiol., Univ. Pennsylvania, Philadelphia,
PA, 19104, USASOURCE: Journal of Medicinal Chemistry (1993), 36(8),
1032-40

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 May 1993

AB Diamide dimercaptide (N2S2) ligands PhC(O)SCH(R)CONHCH2CH2NHCOCH2(R)CHSC(O)Ph (4, 8, R = CH2COOMe, COOEt, resp.) and PhC(O)SCH(COOMe)CH2CONHCH2CH2NHCOCH2CH(COOMe)SC(O)Ph (5) were synthesized and evaluated as potential renal radiopharmaceuticals. The target compds. were prepared in modest overall yields of 22%, 20%, and 19%, for 4, 8, and 5 resp., using readily available starting materials. Following in situ deprotection, 99mTc complexes of high radiochem. purity were obtained and are stable for ≤6 h. AsPh4[99TcO(L8)] [I, H4L8 = HSCH(COOEt)CONHCH2CH2NHCOCH(COOEt)SH] was isolated. X-ray crystallog. data for I (monoclinic, space group P21/n, Z = 4, R = 0.0645 and Rw = 0.0663) show that the Tc is bound to both thiolate S atoms and to 2 deprotonated amide N atoms. The coordination geometry about the Tc is square-pyramidal with an oxo ligand in the apical position. The Tc-N bond distances (2.002(12) and 1.984(12) Å), the Tc-S bond distances (2.300(5) and 2.286(5) Å), and the Tc-O bond distance (1.667(11) Å) are in good agreement with bond lengths reported for similar complexes. The carboxylate groups are not bonded to the Tc atom in the solid state, nor in CDCl3 solution, as evidenced by x-ray crystal data and solution NMR data, resp. In the solid state, I is monoanionic, therefore, at physiol. pH, [99mTcO(L8)] is presumably trianionic. Biodistribution studies performed in rats with the 99mTc complexes revealed slow blood clearance and high muscle uptake for these agents. Modest hepatobiliary excretion was observed, and low quantities of the complexes were found in the heart, lungs, and spleen after 1 h. The urinary excretion of the 99mTc complexes of ligands 4, 5, and 8 is slow when compared to the excretion of [131I]OIH in rats (22%, 22%, and 32% vs. 85-86%, resp.). Protein binding of 99mTc complexes of ligands 4, 5, and 8 in both rat and monkey plasma is similar to MAG3. Preliminary planar imaging studies in monkeys revealed slow renal excretion for these agents. The evaluated 99mTc complexes are poor candidates as renal radiopharmaceuticals.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 8, 25, 75

ST crystal structure technetate oxo ethanediylmercaptoacetamidato complex; mercaptoacetamidato ethanediyl technetate oxo complex; renal excretion technetium ethanediylmercaptoacetamidato complex; biodistribution technetium ethanediylmercaptoacetamidato complex; protein plasma binding technetium ethanediylmercaptoacetamidato complex

IT Organ
(biodistribution of metastable technetium ethanediylmercaptoacetamidato complexes)

IT Proteins, biological studies
RL: BIOL (Biological study)
(technetium-99m ethanediylmercaptoacetamidato complexes binding of, of blood plasma)

IT Kidney, metabolism
(technetium-99m ethanediylmercaptoacetamidato complexes excretion by, in rats)

L60 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:443632 HCAPLUS Full-text

DOCUMENT NUMBER: 117:43632

TITLE: Technetium- and rhenium-labeled

progestins: synthesis, receptor binding and in vivo distribution of an 11 β -substituted progestin labeled with ~~technetium~~-99 and rhenium-186

AUTHOR(S): DiZio, James P.; Anderson, Carolyn J.; Davison, Alan; Ehrhardt, Gary J.; Carlson, Kathryn E.; Welch, Michael J.; Katzenellenbogen, John A.

CORPORATE SOURCE: Dep. Chem., Univ. Illinois, Urbana, IL, 61801, USA

SOURCE: Journal of Nuclear Medicine (1992), 33(4), 558-69
 CODEN: JNMEAQ; ISSN: 0161-5505

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 08 Aug 1992

AB In an effort to develop radiopharmaceuticals useful for the diagnostic ~~imaging~~ of steroid receptor-pos. breast tumors, an analog of the antiprogestin RU486 (mifepristone), modified to incorporate an ~~N2S2 chelate~~ system in the 11 β -position, with 99Tc, 99mTc, and 186Re. For the 99Tc-labeled analogs, a syn pair and two individual antidiastereomers (linker methylene vs. metal-oxo, relative to the N2S2 plate) were isolated. In competitive radiometric binding assays, the syn pair had affinity for the progesterone receptor that was 25% that of (promegestone) R5020 (or 161% that of progesterone), and the individual antidiastereomers had affinities of 47% and 7% that of R5020 (or 303% and 45% that of progesterone). The specific-to-nonspecific binding ratio of the 99nTc and 186Re 11 β -linked syn systems are 75/25 and 54/46, resp. In vivo, these conjugates showed progesterone receptor-mediated uptake in rat uterus, but also high uptake in non-~~target~~ tissues, presumably because of the high lipophilicity of the metal complexes. Modified systems may be useful in vivo as receptor-directed agents for diagnostic ~~imaging~~ or treatment of steroid receptor-pos. tumors.

CC 8-9 (Radiation Biochemistry)
 Section cross-reference(s): 32, 78

ST progesterone receptor binding ~~technetium~~ 99m prepn;
 receptor progesterone binding rhenium 186 complex

IT Imaging
 (of mammary cancer, ~~technetium~~- and rhenium-labeled progestins for)

IT Blood
 Bone, metabolism
 Brain, metabolism
 Kidney, metabolism
 Liver, metabolism
 Lung, metabolism
 Muscle, metabolism
 Ovary, metabolism
 Fats and Glyceridic oils
 RL: BIOL (Biological study)
 (~~technetium~~- and rhenium-labeled progestins distribution in)

IT Mammary gland
 (neoplasm, imaging of, by ~~technetium~~- and rhenium-labeled progestins)

IT Receptors
 RL: BIOL (Biological study)
 (progestogen, ~~technetium~~- and rhenium-labeled progestins binding of, in vivo distribution in relation to)

IT Progestogens
 RL: BIOL (Biological study)
 (receptors, ~~technetium~~- and rhenium-labeled progestins binding of, in vivo distribution in relation to)

IT 142287-16-9
 RL: BIOL (Biological study)
 (~~technetium~~-99m and rhenium-186 labeling of, receptor binding and in vivo distribution of)

10/732,919

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(FILE 'HOME' ENTERED AT 09:49:54 ON 12 JAN 2007)

FILE 'HCAPLUS' ENTERED AT 09:50:06 ON 12 JAN 2007

L11 7720 SEA ABB=ON PLU=ON YANG D?/AU
L12 4098 SEA ABB=ON PLU=ON YU D?/AU
L13 1582 SEA ABB=ON PLU=ON OH C?/AU
L14 681 SEA ABB=ON PLU=ON BRYANT J?/AU
L15 7 SEA ABB=ON PLU=ON L11 AND L12 AND L13 AND L14

FILE 'HCAPLUS' ENTERED AT 10:05:06 ON 12 JAN 2007

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L15 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:524970 HCAPLUS Full-text

DOCUMENT NUMBER: 143:48042

TITLE: N2S2 chelate-targeting ligand conjugates

INVENTOR(S): Yang, David J.; Yu, Dong-fang
; Oh, Chang-Sok; Bryant, Jerry
L.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas
System, USA; Cell Point LLC

SOURCE: U.S. Pat. Appl. Publ., 68 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 2005129619	A1	20050616	US 2003-732919	20031210
PRIORITY APPLN. INFO.:			US 2003-732919	20031210

OTHER SOURCE(S): MARPAT 143:48042

ED Entered STN: 17 Jun 2005

AB The invention provides, in a general sense, a new labeling strategy employing compds. that are N2S2 chelates conjugated to a targeting ligand, wherein the targeting ligand is a disease cell cycle targeting compound, a tumor angiogenesis targeting ligand, a tumor apoptosis targeting ligand, a disease receptor targeting ligand, amifostine, angiostatin, monoclonal antibody C225, monoclonal antibody CD31, monoclonal antibody CD40, capecitabine, a COX-2 inhibitor, deoxycytidine, fullerene, herceptin, human serum albumin, lactose, leuteinizing hormone, pyridoxal, quinazoline, thalidomide, transferrin, or tri-Me lysine. The present invention also pertains to kits employing the compds. of interest, and methods of assessing the pharmacol. of an agent of interest using the present compds.

L15 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:427503 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:301417
 TITLE: Regional radiochemotherapy using in situ hydrogel
 AUTHOR(S): Azhdarinia, Ali; Yang, David J.; Yu, Dong-Fang; Mendez, Richard; Oh, Changsok; Kohanim, Saady; Bryant, Jerry; Kim, E. Edmund
 CORPORATE SOURCE: Division of Diagnostic Imaging, The University of Texas M. D. Anderson Cancer Center, Houston, TX, USA
 SOURCE: Pharmaceutical Research (2005), 22(5), 776-783
 CODEN: PHREEB; ISSN: 0724-8741
 PUBLISHER: Springer
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 20 May 2005

AB To evaluate the feasibility of regional radiochemotherapy of mammary tumors using in situ hydrogel loaded with cisplatin (CDDP) and rhenium-188 (188Re). Sodium alginate (SA) and calcium chloride were used to create a hydrogel for delivery of CDDP and 188Re. In vitro studies were performed to evaluate cytotoxic effects of 188Re-hydrogel and sustained-release ability of the CDDP-hydrogel. Tumor-bearing rats were injected with 188Re-hydrogel (0.5-1 mCi/rat), 188Re-perrhenate (0.5-1 mCi/rat, intratumoral, I.T.), CDDP-hydrogel (3 mg/kg), and 188Re-hydrogel loaded with CDDP (3 mg/kg body weight, 0.5-1 mCi/rat), resp., and groups receiving 188Re were imaged at 24 and 48 h postinjection. Tumor volume, body weight, imaging, and kidney function were assessed as required for each group. Successful formation of the hydrogel was demonstrated by cytotoxic effects of 188Re-hydrogel and slow release of CDDP-hydrogel in vitro. Tumor volume measurements showed significant delay in tumor growth in treated vs. control groups with minimal variation in normal kidney function for the CDDP-hydrogel group. Scintigraphic images indicated localization of 188Re-hydrogel in the tumor site up to 48 h postinjection. Our data demonstrate the feasibility of using hydrogel for delivery of chemotherapeutics and radiation locally. This technique may have applications involving other contrast modalities as well as treatment in cases where tumors are inoperable.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:283370 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:331961
 TITLE: Mechanism-based targeted pancreatic beta cell imaging and therapy
 INVENTOR(S): Yang, David J.; Oh, Chang-sok; Kohanim, Saady; Yu, Dong-Fang; Azhdarinia, Ali; Bryant, Jerry
 PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
 SOURCE: PCT Int. Appl., 67 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 2005027981	A1	20050331	WO 2004-US30374	200409 16
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004273911	A1	20050331	AU 2004-273911	200409 16
CA 2539384	A1	20050331	CA 2004-2539384	200409 16
US 2005100506	A1	20050512	US 2004-942615	200409 16
EP 1675625	A1	20060705	EP 2004-788800	200409 16
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004014512	A	20061107	BR 2004-14512	200409 16
CN 1867363	A	20061122	CN 2004-80030089	200409 16
NO 2006001645	A	20060411	NO 2006-1645	200604 11
PRIORITY APPLN. INFO.:			US 2003-503683P	P 200309 17
			WO 2004-US30374	W 200409 16

ED Entered STN: 01 Apr 2005

AB Compns. for imaging beta cells comprise chelator-antidiabetic agent conjugates and optionally chelated metals are described. Examples of agents are ^{99m}Tc-DTPA conjugated to nateglinide, glipizide, glyburide or glimepiride.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L15 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:777620 HCAPLUS Full-text

DOCUMENT NUMBER: 142:425977

TITLE: Assessment of Therapeutic Tumor Response Using
^{99m}Tc-Ethylenedicysteine-Glucosamine

AUTHOR(S): Yang, David; Yukihiro, Masashi;
Yu, Dong-Fang; Ito, Megumi; Oh,

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Chang-Sok; Kohanim, Saady; Azhdarinia, Ali;
Kim, Chang-Guhn; Bryant, Jerry; Kim,
E. Edmund; Podoloff, Donald
CORPORATE SOURCE: Department of Nuclear Medicine, The University
of Texas M. D. Anderson Cancer Center, Houston,
TX, 1515, USA
SOURCE: Cancer Biotherapy & Radiopharmaceuticals (2004),
19(4), 443-456
CODEN: CBRAFJ; ISSN: 1084-9785
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 24 Sep 2004

AB Purpose: The aim of this study was to evaluate 99mTc- ethylenedicysteine-glucosamine (EC-DG) for the assessment of tumor growth. Method: To evaluate whether 99mTc-EC-DG is involved in cell nuclei activity, in vitro thymidine incorporation, and cell-cycle assays of EC-DG were conducted using lung and breast cancer cells. Biodistribution of 99mTc-EC-DG in lung tumor-bearing mice (0.5-4 h, 1 Ci/mouse, i. v.) was used to estimate the radiation-absorbed dose. Autoradiograms of 99mTc-EC-DG and 18F-FDG were compared in nude mice bearing uterine sarcoma. Rabbits inoculated with VX-2 cells were imaged with 99mTc-EC-DG and 99mTc-EC. For therapeutic assessment studies, scintigraphic imaging studies with 99mTc-EC-DG in mammary tumor-bearing rats were conducted at various days after treatment with paclitaxel and cisplatin. The imaging findings were correlated immunohistochem. assays (mRNA expression, apoptosis, and cell-cycle changes in tumor), and flow cytometry anal. was performed. Results: In vitro cellular uptake assays indicated that cell nuclei activity could be assessed by 99mTc-EC-DG. Scintigraphy and autoradiograms in animal models demonstrated that the tumor could be clearly visualized by 99mTc-EC-DG. The efficacy of paclitaxel and cisplatin treatment in rodent models could be assessed using tumor/muscle ratios. Immunohistochem. staining indicated a reduced expression of bFGF and an increased apoptosis and cell-cycle changes after paclitaxel and cisplatin treatment. Conclusion: 99mTc-EC-DG is involved in cell nuclei activity and could assess the therapeutic tumor response.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE
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IN THE RE FORMAT

L15 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:430988 HCAPLUS Full-text

DOCUMENT NUMBER: 140:419980

TITLE: Ethylenedicysteine (EC)-drug conjugates,
compositions and methods for tissue specific
disease imaging

INVENTOR(S): Yang, David J.; Yu, Dong-Fang
; Oh, Chang-Sok; Bryant, Jerry
K., Jr.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas
System, USA; Cell Point, LLC

SOURCE: PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 2004044227	A2	20040527	WO 2003-US36078	200311 07
WO 2004044227	A3	20041111		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,

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SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

CA 2505537	A1	20040527	CA 2003-2505537	200311 07
AU 2003297261	A1	20040603	AU 2003-297261	200311 07
US 2004166058	A1	20040826	US 2003-703405	200311 07
EP 1562641	A2	20050817	EP 2003-811262	200311 07
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003016046	A	20050913	BR 2003-16046	200311 07
CN 1723042	A	20060118	CN 2003-80105318	200311 07
JP 2006515835	T	20060608	JP 2004-552132	200311 07
NO 2005002265	A	20050803	NO 2005-2265	200505 10
PRIORITY APPLN. INFO.:			US 2002-424493P	P 200211 07
			WO 2003-US36078	W 200311 07

OTHER SOURCE(S): MARPAT 140:419980

ED Entered STN: 27 May 2004

AB The invention provides, in a general sense, a new labeling strategy employing compds. that are N2S2 chelates conjugated to a targeting ligand, wherein the targeting ligand is a disease cell cycle targeting compound, a tumor angiogenesis targeting ligand, a tumor apoptosis targeting ligand, a disease receptor targeting ligand, amifostine, angiostatin, monoclonal antibody C225, monoclonal antibody CD31, monoclonal antibody CD40, capecitabine, COX-2, deoxycytidine, fullerene, herceptin, human serum albumin, lactose, leuteinizing hormone, pyridoxal, quinazoline, thalidomide, transferrin, or tri-Me lysine. The present invention also pertains to kits employing the compds. of interest, and methods of assessing the pharmacol. of an agent of interest using the present compds.

L15 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:371970 HCAPLUS Full-text

DOCUMENT NUMBER: 141:49696

TITLE: Assessment of cyclooxygenase-2 expression with
99mTc-labeled celebrex

AUTHOR(S): Yang, David J.; Bryant, Jerry
; Chang, Joe Y.; Mendez, Richard; Oh,
Chang-Sok; Yu, Dong-Fang; Ito,
Megumi; Azhdarinia, Ali; Kohanim, Sahar; Kim, E.
Edmund; Lin, Edward; Podoloff, Donald A.

CORPORATE SOURCE: Division of Diagnostic Imaging, University of

Texas M. D. Anderson Cancer Center, Houston, TX,
USA

SOURCE: Anti-Cancer Drugs (2004), 15(3), 255-263
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 07 May 2004

AB Cyclooxygenase-2 (COX-2) plays an important role in angiogenesis and cancer progression. Since many tumor cells exhibit COX-2 expression, functional imaging of COX-2 expression using celebrex (CBX, a COX-2 inhibitor) may provide not only a non-invasive, reproducible, quantifiable alternative to biopsies, but it also greatly complements pharmacokinetic studies by correlating clin. responses with biol. effects. Moreover, mol. endpoints of anti-COX-2 therapy could also be assessed effectively. This study aimed at measuring uptake of 99mTc-EC-CBX in COX-2 expression in tumor-bearing animal models. In vitro Western blot anal. and cellular uptake assays were used to examine the feasibility of using 99mTc-EC-CBX to measure COX-2 activity. Tissue distribution studies of 99mTc-EC-CBX were evaluated in tumor-bearing rodents at 0.5-4 h. Dosimetric absorption was then estimated. Planar scintigraphy was performed in mice, rats and rabbits bearing tumors. In vitro cellular uptake indicated that cells with higher COX-2 expression (A549 and 13762) had higher uptake of 99mTc-EC-CBX than lower COX-2 expression (H226). In vivo biodistribution of 99mTc-EC-CBX in tumor-bearing rodents showed increased tumor:tissue ratios as a function of time. In vitro and biodistribution studies demonstrated the possibility of using 99mTc-EC-CBX to assess COX-2 expression. Planar images confirmed that the tumors could be visualized with 99mTc-EC-CBX from 0.5 to 4 h in tumor-bearing animal models. We conclude that 99mTc-EC-CBX may be useful to assess tumor COX-2 expression. This may be useful in the future for selecting patients for treatment with anti-COX-2 agents.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L15 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:54939 HCAPLUS Full-text

DOCUMENT NUMBER: 139:159553

TITLE: Assessment of epidermal growth factor receptor
with 99mTc-ethylenedicysteine-C225 monoclonal
antibody

AUTHOR(S): Schechter, Naomi R.; Yang, David J.;
Azhdarinia, Ali; Kohanim, Sahar; Wendt, Richard,
III; Oh, Chang-Sok; Hu, Mickey;
Yu, Dong-Fang; Bryant, Jerry;
Ang, K. Kian; Forster, Kenneth M.; Kim, E.
Edmund; Podoloff, Donald A.

CORPORATE SOURCE: Div. Radiation Oncology, Univ. Texas, Houston,
TX, USA

SOURCE: Anti-Cancer Drugs (2002), Volume Date 2003,
14(1), 49-56

CODEN: ANTDEV; ISSN: 0959-4973

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Jan 2003

AB Epidermal growth factor receptor (EGFR) plays an important role in cell division and cancer progression, as well as angiogenesis and metastasis. Since many tumor cells exhibit the EGFR on their surface, functional imaging of EGFR provides not only a non-invasive, reproducible, quantifiable alternative to biopsies, but it also greatly complements pharmacokinetic studies by correlating clin. responses with biol. effects. Moreover, mol. endpoints of anti-EGFR therapy could be assessed effectively. C225 is a chimeric monoclonal antibody that targets the human extracellular EGFR and inhibits the growth of EGFR-expressing tumor cells. Also, it has been demonstrated that C225, in combination with chemotherapeutic drugs or radiotherapy, is effective in eradicating well-established tumors in nude mice. We have developed 99mTc-labeled C225 using ethylenedicysteine (EC) as a chelator. This study aimed at measuring uptake of 99mTc-EC-C225 in EGFR tumor-bearing animal models and preliminary feasibility of imaging patients with head and neck carcinomas. Western blot anal. and cytotoxicity assays were used to examine the integrity of EC-C225. Tissue distribution studies of 99mTc-EC-

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C225 were evaluated in tumor-bearing rodents at 0.5-4 h. biodistribution of ^{99m}Tc-EC-C225 in tumor-bearing rodents showed increased tumor-to-tissue ratios as a function of time. and biodistribution studies demonstrated the possibility of using ^{99m}Tc-EC-C225 to assess EGFR expression. SPECT images confirmed that the tumors could be visualized with ^{99m}Tc-EC-C225 from 0.5 to 4 h in tumor bearing rodents. We conclude that ^{99m}Tc-EC-C225 may be useful to assess tumor EGFR expression. This may be useful in the future for selecting patients for treatment with C225.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

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